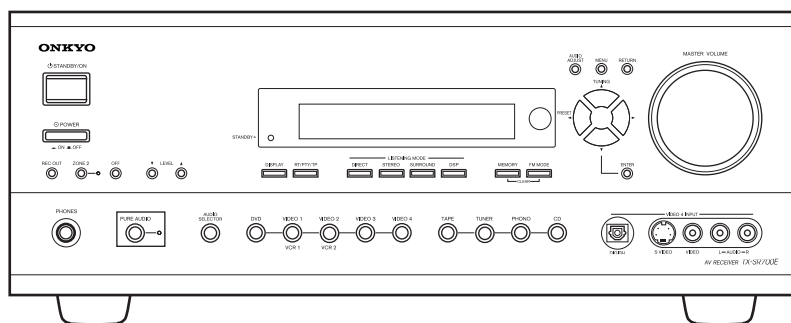
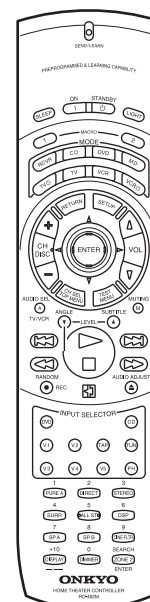


ONKYO SERVICE MANUAL

AV RECEIVER MODEL TX-SR700/E




Black, Golden and Silver models



RC-482M

BMDD	120V AC, 60Hz
BMPP,BMPA,SMPP,GMPP	230~240V AC, 50Hz
BMWT,GMWT,GMWR	120/220~230V AC, 50/60Hz
GMGK	220V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

AMPLIFIER SECTION

Continuous average power output (FTC)

All channels: **100W per channel min. RMS at 8 ohm, 2 channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion.**
125 W min. RMS at 6 ohm, 2 channels driven from 1 kHz with no more than 0.1% total harmonic distortion.

Continuous power output (DIN) 130 W at 6 ohm
 Maximum power output (EIAJ) 160 W at 6 ohm
 Dynamic power output (stereo) 2 × 250 W at 3 ohm
 2 × 210 W at 4 ohm
 2 × 130 W at 8 ohm

Total harmonic distortion: 0.08% at rated power
 0.08% at 1 W output

IM distortion: 0.08% at rated power
 0.08% at 1 W output

Damping factor: 60 at 8 ohm

Input sensitivity and impedance

PHONO: 2.5 mV, 47 kohm
 LINE (CD, TAPE, DVD, VIDEO 1-4): 200 mV, 47 kohm
 MULTICHANNEL INPUT (FRONT L/C/R, SURROUND L/R): 200 mV, 47 kohm
 (SUBWOOFER): 36 mV, 47 kohm
 COAXIAL (DIGITAL): 0.5 Vp-p, 75 ohm
 DVD, VIDEO 1, 2, 3, 4: 1 Vp-p, 75 ohm
 1 Vp-p, 75 ohm (Y)
 0.28 Vp-p, 75 ohm (C)
 COMPONENT VIDEO 1, 2: 1 Vp-p, 75 ohm (Y)
 0.7 Vp-p, 75 ohm (Pb, Pr)

Output level and impedance
 Rec out (TAPE, VIDEO 1): 200 mV, 470 ohm
 Pre out: 1 V, 470 ohm

VIDEO (VIDEO 1, MONITOR OUT): 1 Vp-p, 75 ohm
 1 Vp-p, 75 ohm (Y)
 0.28 p-p, 75 ohm (C)
 COMPONENT VIDEO OUT: 1 Vp-p, 75 ohm (Y)
 0.7 Vp-p, 75 ohm (Pb, Pr)

Phono overload: 70mV RMS at 1 kHz, 0.5% T.H.D.

Frequency response: 10 Hz to 100 kHz: +1/-3 dB
 (CD in Direct mode)

RIAA deviation: 20 Hz to 20 kHz: ±0.8 dB

Tone control

Bass: ±12 dB at 50 Hz
 Treble: ±12 dB at 20,000 Hz

Signal-to-noise ratio (stereo)

Phono: 80 dB (IHF A, 5 m V input)
 CD/Tape: 100 dB (IHF A, 0.5 V input)
 Muting: -50 dB

TUNER SECTION

FM

Tuning range: 87.5-108.0 MHz (50-kHz steps)

Usable sensitivity

Mono: 11.2 dBf, 1.0 µV (75 ohm IHF)
 0.9 µV (75 ohm DIN)
 Stereo: 17.2 dBf, 2.0 µV (75 ohm IHF)
 23 µV (75 ohm DIN)

50 dB quieting sensitivity

Mono: 17.2 dBf, 2.0 µV (75 ohm)
 Stereo: 37.2 dBf, 20 µV (75 ohm)

Capture ratio: 2.0 dB

Image rejection ratio

USA & Canadian models: 40 dB

Other area models: 85 dB

IF rejection ratio: 90 dB

Signal-to-noise ratio

Mono: 76 dB

Stereo: 70 dB

Alternate channel attenuation: 55 dB

Selectivity: 50 dB (DIN)

AM suppression ratio: 50 dB

Total harmonic distortion

Mono: 0.2%

Stereo: 0.3%

Frequency response: 30 Hz - 15 kHz, ±1.0 dB

Stereo separation: 45 dB at 1 kHz

30 dB at 100 Hz -10 kHz

AM

Tuning range

USA & Canadian models: 530 to 1,710 kHz (10-kHz steps)

European & Australian models: 522 to 1,611 kHz (9-kHz steps)

Worldwide models: 531 to 1,602 kHz (9-kHz steps)

530 to 1,710 kHz (10-kHz steps)

Usable sensitivity: 30 µV

Image rejection ratio: 40 dB

IF rejection ratio: 40 dB

Signal-to-noise ratio: 40 dB

Total harmonic distortion: 0.7%

GENERAL

Power supply

USA & Canadian models: AC 120 V, 60 Hz

European & Australian models: AC 230 - 240 V, 50 Hz

Some Asian models: AC 220 - 230 V, 50/60 Hz

Worldwide models: AC 220 - 230 and 120 V
 switchable, 50/60 Hz

Power consumption

USA & Canadian models: 6.7 A

Other models: 550 W

Dimensions (W×H×D):

435×175×431.5 mm

17-1/8"×6-7/8"×16-15/16"

Weight

USA & Canadian models: 27.8 lbs.

Other models: 13.1 kg

REMOTE CONTROLLER

Transmitter: Infrared

Signal range: Approx. 16 ft., 5 meters

Power supply: Two "AA" batteries (1.5 V × 2)

Specifications and features are subject to change without notice.

SERVICE PROCEDURES

1. Replacing the fuses



This symbol located near the fuses indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.



Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que fusibles de meme type. Ce dernier est la qu le present symbol est appee.

CIRCUIT NO.	PART NO.	DESCRIPTION
F6901,F6902	252100	10A-EAK,Fuse <O>
	252196	12A-UL/T-314,Fuse <D>
F901	252199	10A-UL,Fuse <D/T/R>
F902	252078,	5A-SE-EAK,
	252244 or	5A-SE-TL250V or
	252278	5A-SE-TL250V,Fuse <O>
	252075,	2.5A-SE-EAK,
F903	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <O>
	252160 or	2.5A-UL/T-237 or
F9501	252254	2.5A-T/UL-ST2,Fuse <D>
	252075,	2.5A-SE-EAK,
	252241 or	2.5A-SE-TL250V or
	252275	2.5A-SE-TL250V,Fuse <O>

Note: <D>:120V model only
 <O>: Other models except 120V model
 <T>: Asian model only for 230V
 <R>: Chinese model only

2. To initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

1. Press and hold down the VIDEO-1 button, then press the STANDBY/ON button.
2. After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory setting.

3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer. Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.

Specifications: 3.3Mohm+/-10% at 500V.

4. Memory Preservation

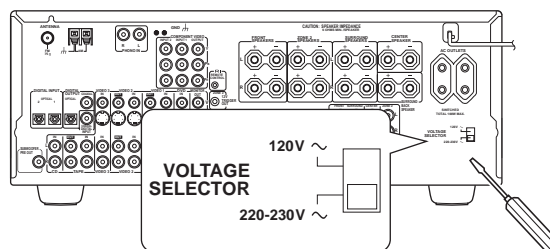
This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.

The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

5. Setting the voltage selector (Worldwide models only)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit.

Determine the proper voltage for your area: 220-230 V or 120 V. If the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way to the upper (120 V) or to the lower (220-230 V), whichever is appropriate.

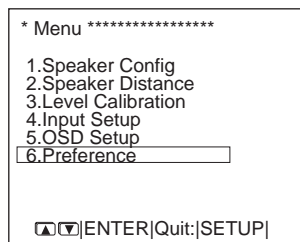


6. Setting the AM tuning step frequency

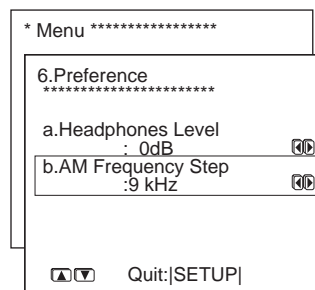
(Worldwide models only)

1. Press the MENU button on the front panel or SETUP button on the remote controller.

The main menu appears.



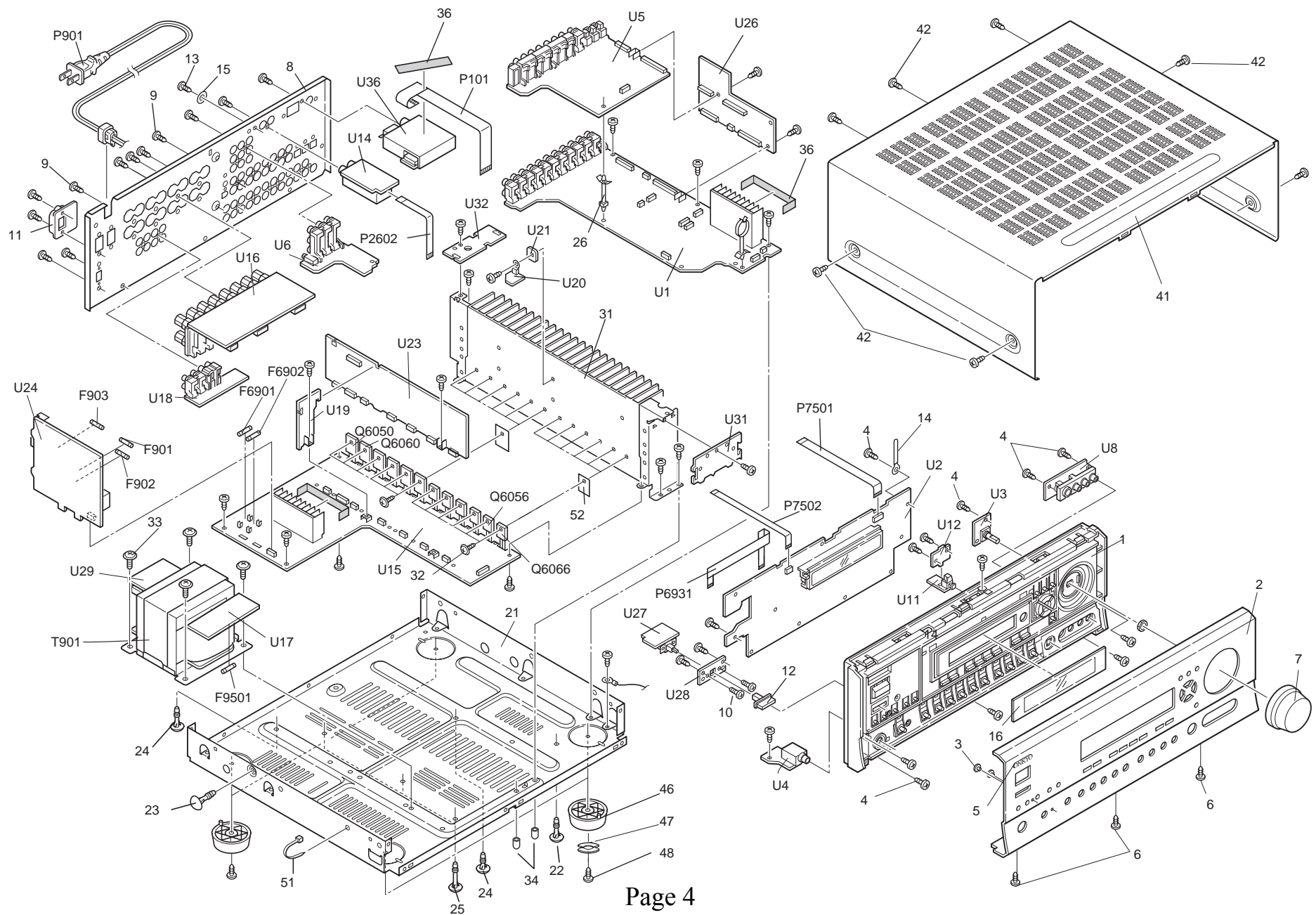
2. Use the ▲ and ▼ cursor buttons to select "6. Preference" and then press the ENTER button.




b. AM Frequency Step




This setting only appears on the worldwide model. It determines the increment amount or decrement amount when adjusting the AM tuner frequency. The initial setting is 9 kHz, and this needs only to be changed if you are using the unit in a 10-kHz region.

EXPLODED VIEW





EXPLODED VIEW-PARTS LIST 2



NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
T901	2301587	 NPT-1439D,Power transformer <D>	U24	1A929584-1N	NAPS-7484-1N,Primary circuit PC board ass'y <D>
	2301588	 NPT-1439P,Power transformer <P/A>		1A929584-1O	NAPS-7484-1O,Primary circuit PC board ass'y <P>
	2301589	 NPT-1439DG,Power transformer <T/R/K>		1A929584-1P	NAPS-7484-1P,Primary circuit PC board ass'y <A>
U1	1A929560-1N	NADG-7460-1N,Main circuit PC board ass'y <D>		1A929584-1Q	NAPS-7484-1Q,Primary circuit PC board ass'y <R>
	1A929560-1O	NADG-7460-1O,Main circuit PC board ass'y <P>		1A929584-1R	NAPS-7484-1R,Primary circuit PC board ass'y <T>
	1A929560-1P	NADG-7460-1P,Main circuit PC board ass'y <A/K>		1A929584-1U	NAPS-7484-1U,Primary circuit PC board ass'y <K>
	1A929560-1Q	NADG-7460-1Q,Main circuit PC board ass'y <T/R>	U26	1A929586-1N	NAETC-7486-1N,Connector PC board ass'y <D>
U2	1A929561-1N	NADIS-7461-1N,Display circuit PC board ass'y <D>		1A929586-1O	NAETC-7486-1O,Connector PC board ass'y <P>
	1A929561-1O	NADIS-7461-1O,Display circuit PC board ass'y <O>		1A929586-1P	NAETC-7486-1P,Connector PC board ass'y <A>
U3	1A929562-1N	NASW-7462-1N,Volume PC board ass'y <D>		1A929586-1Q	NAETC-7486-1Q,Connector PC board ass'y <R>
	1A929562-1O	NASW-7462-1O,Volume PC board ass'y <O>		1A929586-1R	NAETC-7486-1R,Connector PC board ass'y <T>
U4	1A929563-1N	NAETC-7463-1N,Headphone terminal PC board ass'y <D>		1A929586-1U	NAETC-7486-1U,Connector PC board ass'y <K>
	1A929563-1O	NAETC-7463-1O,Headphone terminal PC board ass'y <O>	U27	1A929587-1O	NASW-7487-1O,Power switch PC board ass'y <P>
U5	1A929564-1N	NAVD-7464-1N,Video terminal PC board ass'y <D>		1A929587-1P	NASW-7487-1P,Power switch PC board ass'y <A>
	1A929564-1O	NAVD-7464-1O,Video terminal PC board ass'y <O>		1A929587-1Q	NASW-7487-1Q,Power switch PC board ass'y <R>
U6	1A929565-1N	NAVD-7465-1N,Component video terminal PC board ass'y <D>		1A929587-1R	NASW-7487-1R,Power switch PC board ass'y <T>
	1A929565-1O	NAVD-7465-1O,Component video terminal PC board ass'y <O>		1A929587-1U	NASW-7487-1U,Power switch PC board ass'y <K>
U8	1A929567-1N	NAVD-7467-1N,Front video PC board ass'y <D>	U28	1A929588-1O	NAETC-7488-1O,PC board for holder <P>
	1A929567-1O	NAVD-7467-1O,Front video PC board ass'y <O>		1A929588-1P	NAETC-7488-1P,PC board for holder <A>
U11	1A929570-1N	NADG-7470-1N,Front optical input PC board ass'y <D>		1A929588-1Q	NAETC-7488-1Q,PC board for holder <R>
	1A929570-1O	NADG-7470-1O,Front optical input PC board ass'y <O>		1A929588-1R	NAETC-7488-1R,PC board for holder <T>
U12	1A929571-1N	NAETC-7471-1N,PC board for holder <D>		1A929588-1U	NAETC-7488-1U,PC board for holder <K>
	1A929571-1O	NAETC-7471-1O,PC board for holder <O>	U29	1A929589-1N	NAPS-7489-1N,Terminal PC board ass'y <D>
U14	1A929573-1N	NAAF-7473-1N,Equalizer amplifier PC board ass'y <D>		1A929589-1O	NAPS-7489-1O,Terminal PC board ass'y <P>
	1A929573-1O	NAAF-7473-1O,Equalizer amplifier PC board ass'y <O>		1A929589-1P	NAPS-7489-1P,Terminal PC board ass'y <A>
U15	1A929574-1N	NAAF-7474-1N,Power amplifier PC board ass'y <D>		1A929589-1Q	NAPS-7489-1Q,Terminal PC board ass'y <R>
	1A929574-1O	NAAF-7474-1O,Power amplifier PC board ass'y <O>		1A929589-1R	NAPS-7489-1R,Terminal PC board ass'y <T>
U16	1A929576-1N	NAETC-7476-1N,Speaker terminal PC board ass'y <D>		1A929589-1U	NAPS-7489-1U,Terminal PC board ass'y <K>
	1A929576-1O	NAETC-7476-1O,Speaker terminal PC board ass'y <O>	U31	1A929591-1N	NAETC-7491-1N,PC board for holder <D>
U17	1A929577-1N	NAPS-7477-1N,Secondary circuit PC board ass'y <D>		1A929591-1O	NAETC-7491-1O,PC board for holder <P>
	1A929577-1O	NAPS-7477-1O,Secondary circuit PC board ass'y <O>		1A929591-1P	NAETC-7491-1P,PC board for holder <A>
U18	1A929578-1N	NAETC-7478-1N,Preoutput PC board ass'y <D>		1A929591-1Q	NAETC-7491-1Q,PC board for holder <R>
	1A929578-1O	NAETC-7478-1O,Preoutput PC board ass'y <O>		1A929591-1R	NAETC-7491-1R,PC board for holder <T>
U19	1A929579-1N	NAETC-7479-1N,PC board for holder <D>		1A929591-1U	NAETC-7491-1U,PC board for holder <K>
	1A929579-1O	NAETC-7479-1O,PC board for holder <O>	U32	1A929592-1N	NAETC-7492-1N,PC board for holder <D>
U20	1A929580-1N	NAETC-7480-1N,Thermal detector PC board ass'y <D>		1A929592-1O	NAETC-7492-1O,PC board for holder <P>
	1A929580-1O	NAETC-7480-1O,Thermal detector PC board ass'y <O>		1A929592-1P	NAETC-7492-1P,PC board for holder <A>
U21	1A929581-1N	NAETC-7481-1N,PC board for holder <D>		1A929592-1Q	NAETC-7492-1Q,PC board for holder <R>
	1A929581-1O	NAETC-7481-1O,PC board for holder <O>		1A929592-1R	NAETC-7492-1R,PC board for holder <T>
U23	1A929583-1N	NAAF-7483-1N,Driver circuit PC board ass'y <D>		1A929592-1U	NAETC-7492-1U,PC board for holder <K>
	1A929583-1O	NAAF-7483-1O,Driver circuit PC board ass'y <P>	U33	1A929593-1U	NAPS-7493-1U,AC outlet PC board ass'y <K>
	1A929583-1P	NAAF-7483-1P,Driver circuit PC board ass'y <A>	U36	240138A,	ENG06501QR,
	1A929583-1Q	NAAF-7483-1Q,Driver circuit PC board ass'y <R>		240134A or	TFCE1U114B or
	1A929583-1R	NAAF-7483-1R,Driver circuit PC board ass'y <T>		240141	FAE350-A13F,Tuner unit <D>
	1A929583-1U	NAAF-7483-1U,Driver circuit PC board ass'y <K>		240139A,	ENG07501QR,
				240135 or	TFCE1E512A or
				240142	FAE404-E13F,Tuner unit <O>


Note:
 <D>: 120V model only
 <P>: European model only
 <T>: 230-240 model only
 <K>: Korean model only
 <A>: Australian model only
 <R>: Chinese model only
 <O>: Other models except 120V model

EXPLODED VIEW-PARTS LIST 1

REF.NO.	PART NO.	DESCRIPTION
1	27111271B	Front bracket
	27111272B	Front bracket <S>
	27111273B	Front bracket <G>
2	27212388	Front panel <D>
	27212389	Front panel <A/T>
	27212390	Front panel <P>
	27212391	Front panel <S>
	27212392	Front panel <G>
3	28198778	Facet
4	838130088	3TTB+8B,Self-tapping screw
5	28135244	Badge
	28135245	Badge <S/G>
6	838430088	3TTB+8B(BC),Self-tapping screw
7	28326010	Knob, volume
	28326011	Knob, volume <S>
	28326012	Knob, volume <G>
8	27122973A	Rear panel <D>
	27122974A	Rear panel <P>
	27122975A	Rear panel <T>
	27122976A	Rear panel <A>
	27122977A	Rear panel <R>
	27122978A	Rear panel <K>
10	82143010	3P+10FN(BC),Pan head screw
11	27191130	 Holder, outlet <R>
12	28325497A	Knob,power
	28325499A	Knob,power <S>
	28325547A	Knob,power <G>
14	27255004	CS-1U,Clip
16	28191957	Clear plate
16	28191958	Clear plate <G/S>
18	87643010	W3*10F(BC),Flat washer
21	27100418A	Chassis
22	27190693A	KGLS-6RF,Holder
23	27190428A	KGLS-10RF,Holder
24	27190266	KGLS-12RF,Holder
26	27190369	Holder
27	27300750	 Bushing, cord
31	27160505	heat sink
32	801433	3SMS8W.SW+14B(BC),Special screw
33	830440089	4TTC+8C(BC),Self-tapping screw
34	28330135A	Cap, screw
36	29110083	Tape, cloth
41	28184835	Top cover
41	28184836	Top cover <S>
41	28184837	Top cover <G>
42	838930088	3TTB+8B(UN),Self-tapping screw
46	27175319B	Leg

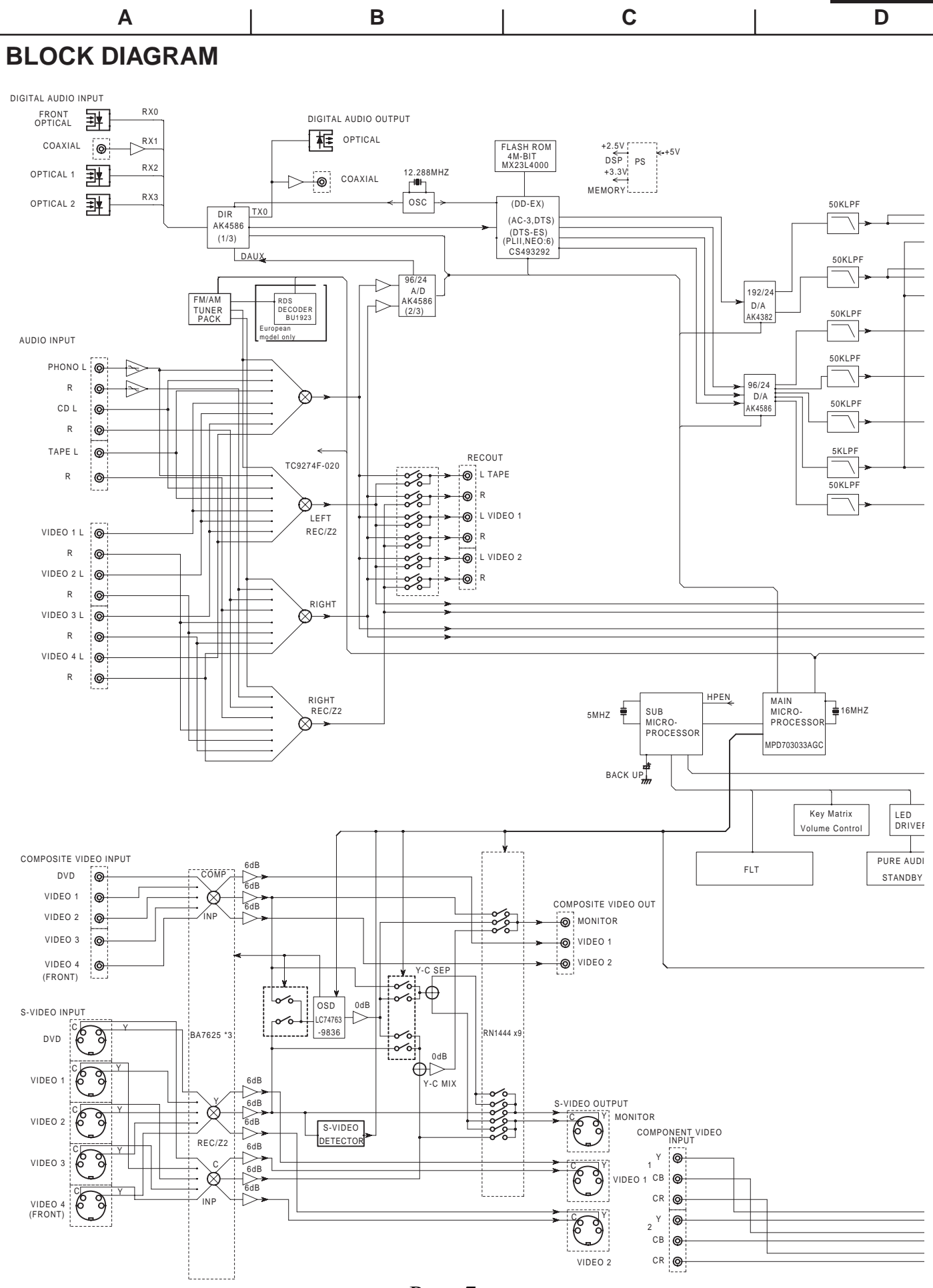
REF.NO.	PART NO.	DESCRIPTION
47	28141494	Cushion
51	260208	Wire tie
52	223025	AC262,Isolated sheet
F6901,F6902	252100	 10A-EAK,Fuse <O>
	252196	 12A-UL/T-314,Fuse <D>
F901	252199	 10A-UL,Fuse <D/T/R>
F902	252078,	 5A-SE-EAK,
	252244 or	 5A-SE-TL250V or
	252278	 5A-SE-TL250V,Fuse <O>
F903	252075,	 2.5A-SE-EAK,
	252241 or	 2.5A-SE-TL250V or
	252275	 2.5A-SE-TL250V,Fuse <O>
F9501	252160 or	 2.5A-UL/T-237 or
	252254	 2.5A-T/UL-ST2,Fuse <D>
	252075,	 2.5A-SE-EAK,
	252241 or	 2.5A-SE-TL250V or
	252275	 2.5A-SE-TL250V,Fuse <O>
P101	2047152522	NCFC7-152522,Flexible cable
P2602	2047071622	NCFC7-071622,Flexible cable
P2602	2047071622	NCFC7-071622,Flexible cable
P2602	2047071622	NCFC7-071622,Flexible cable
P6931	2047134512	NCFC7-134512,Flexible cable
P7501	2047113022	NCFC7-113022,Flexible cable
P7502	2047061522	NCFC7-061522,Flexible cable
P901	253332HIT or	 AS-UC-2 or
	253333VOL	 AS-UC-2,Power supply cord <D>
	253233KAW	 AS-CEE-2,Power supply cord <P/T/K>
	253197HIT or	 AS-SAA or
	253307VOL	 AS-SAA,Power supply cord <A>
	253337HIT or	 AS-CCEE or
	253338VOL	 AS-CCEE,Power supply cord <R>
P902A	25052665	 NSCT-2P2561,AC outlet <K>
Q6050-Q6052	2202823 or	* 2SC5200-O or
	2202822	* 2SC5200-R,Transistor
Q6053-Q6055	2203683,	* MN150S-O,
	2203684,	* MN150S-Y,
	2203686,	* MN150S-P,
	2202823 or	* 2SC5200-O or
	2202822	* 2SC5200-R,Transistor
Q6060-Q6062	2202813 or	* 2SA1943-O or
	2202812	* 2SA1943-R,Transistor
Q6063-Q6065	2203693,	* MP150S-O,
	2203694,	* MP150S-Y,
	2203696,	* MP150S-P,
	2202813 or	* 2SA1943-O or
	2202812	* 2SA1943-R,Transistor

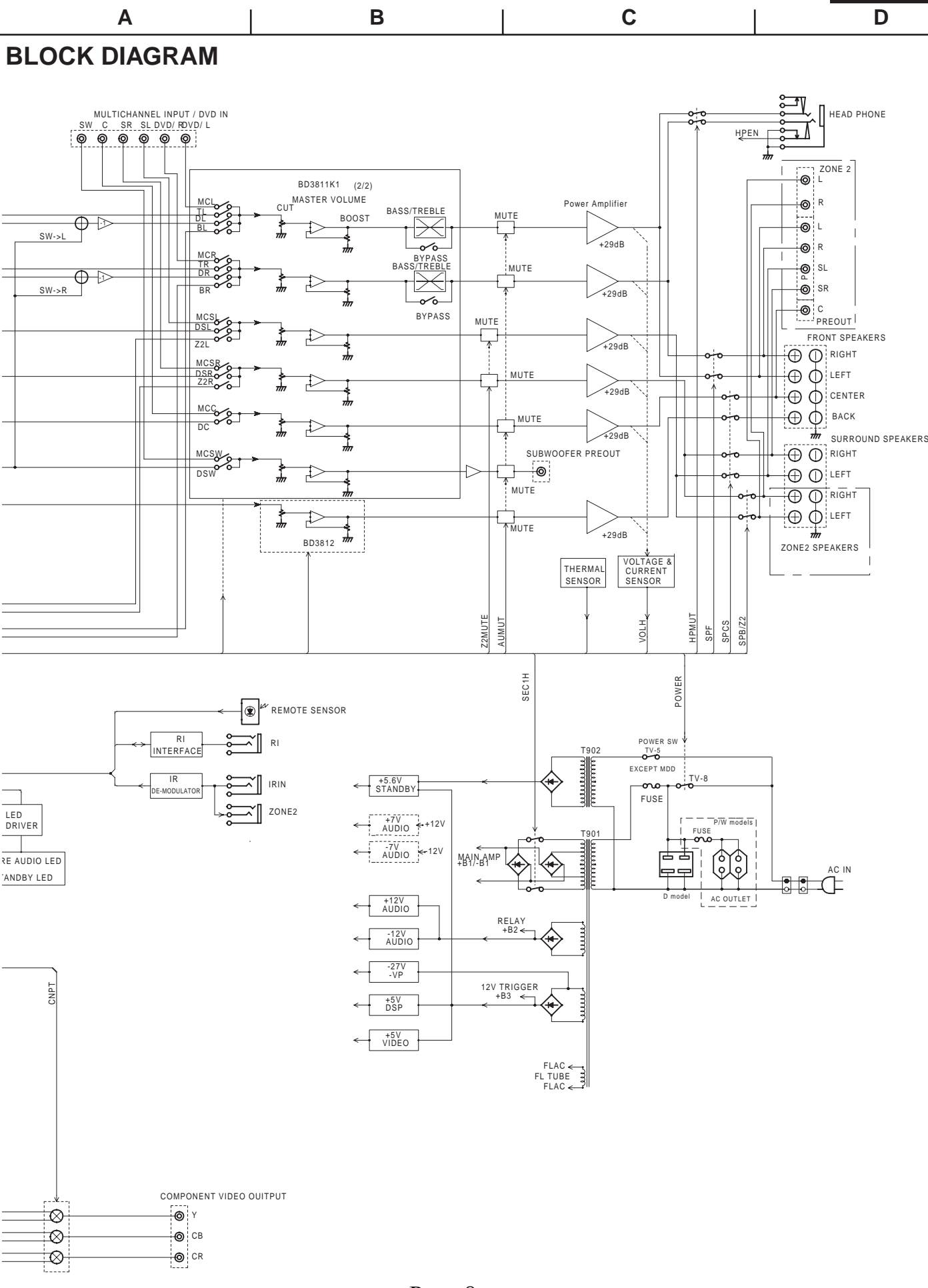
CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (h_{FE}) as the original type.

NOTE: THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

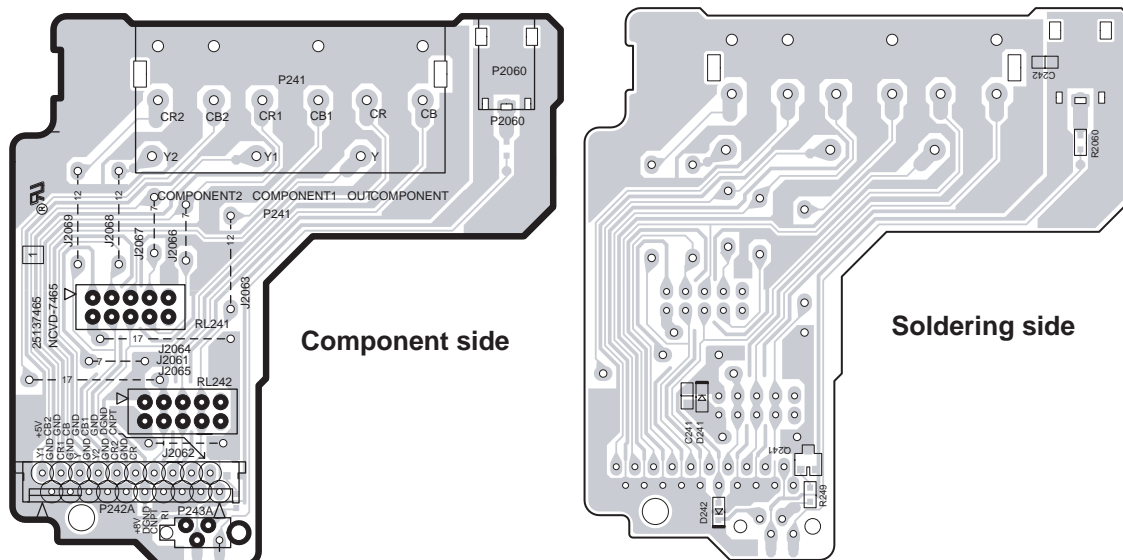
Note:

: Black model only
 <G>: Golden model only
 <S>: Silver model only
 <D>: 120V model only
 <P>: European model only
 <T>: 230-240 model only
 <K>: Korean model only
 <A>: Australian model only
 <R>: Chinese model only
 <O>: Other models except 120V model

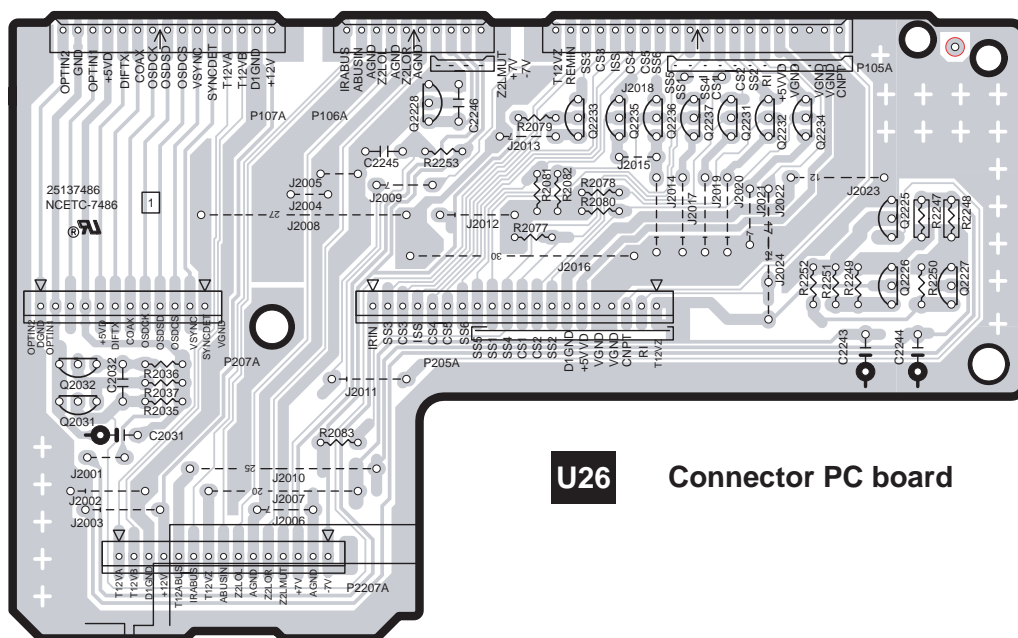




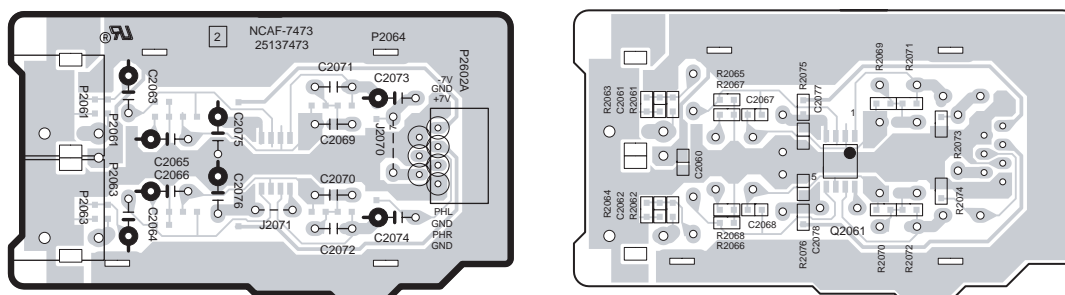
Video section 2



U6 **Component video terminal PC board**



U26 Connector PC board



Component side

Soldering side

U14 Equalizer amp. PC board

U5

Video terminal PC board

Video section 1



Soldering side

A

B

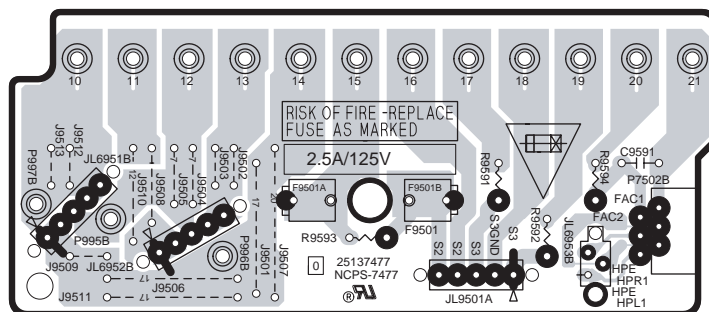
C

D

PRINTED CIRCUIT BOARD VIEW 7

Power supply and output sections

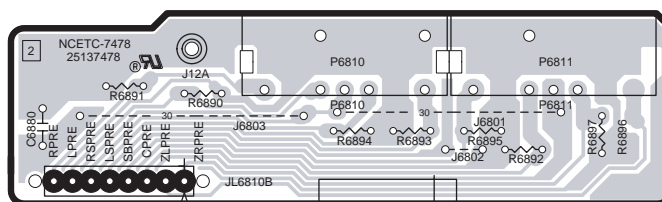
1



2

U17

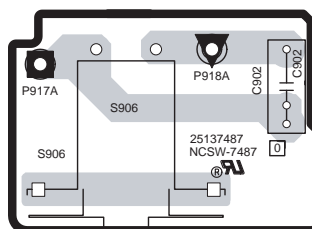
Secondary circuit PC board



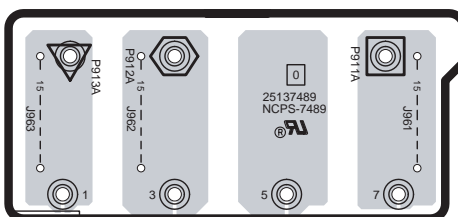
3

U18

Pre. output PC board



4

U27Power switch PC board
(Except 120V model)

5

U29

Terminal PC board

2



4



Page 12

Power amplifier section 1

5

Driver circuit
PC board



A

B

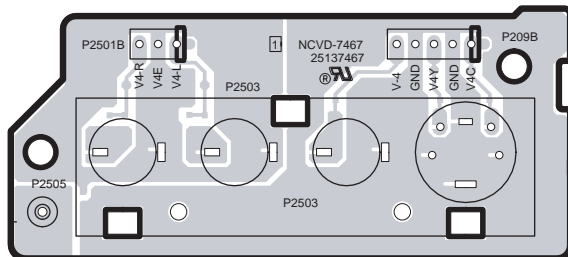
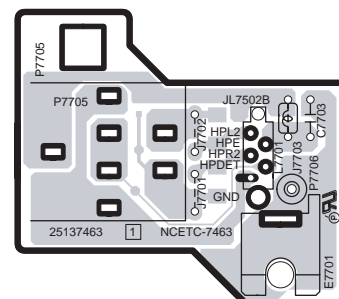
C

D

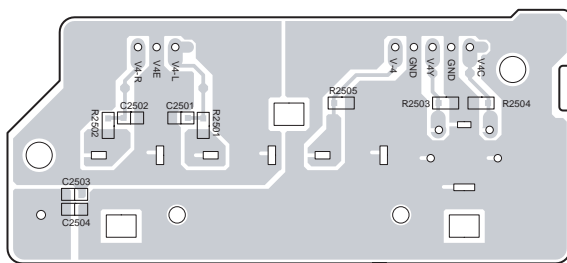
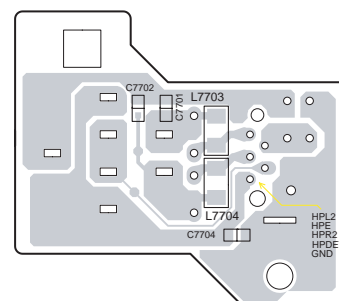
PRINTED CIRCUIT BOARD VIEW 3

Front panel section

1

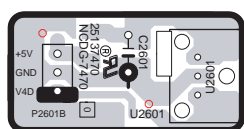
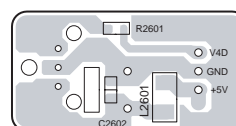
U8**U4****Component side****Component side**

2

**Soldering side****Soldering side****Front video PC board****Headphone terminal PC board**

3

4

U11**Component side****Soldering side****Front optical input PC board**

5

A

B

C

D

PRINTED CIRCUIT BOARD VIEW 2-4 DSP section

1

2

3

4

U1

Main circuit PC board

Pattern:Parts side

5

A

B

C

D

PRINTED CIRCUIT BOARD VIEW 2-3

DSP section

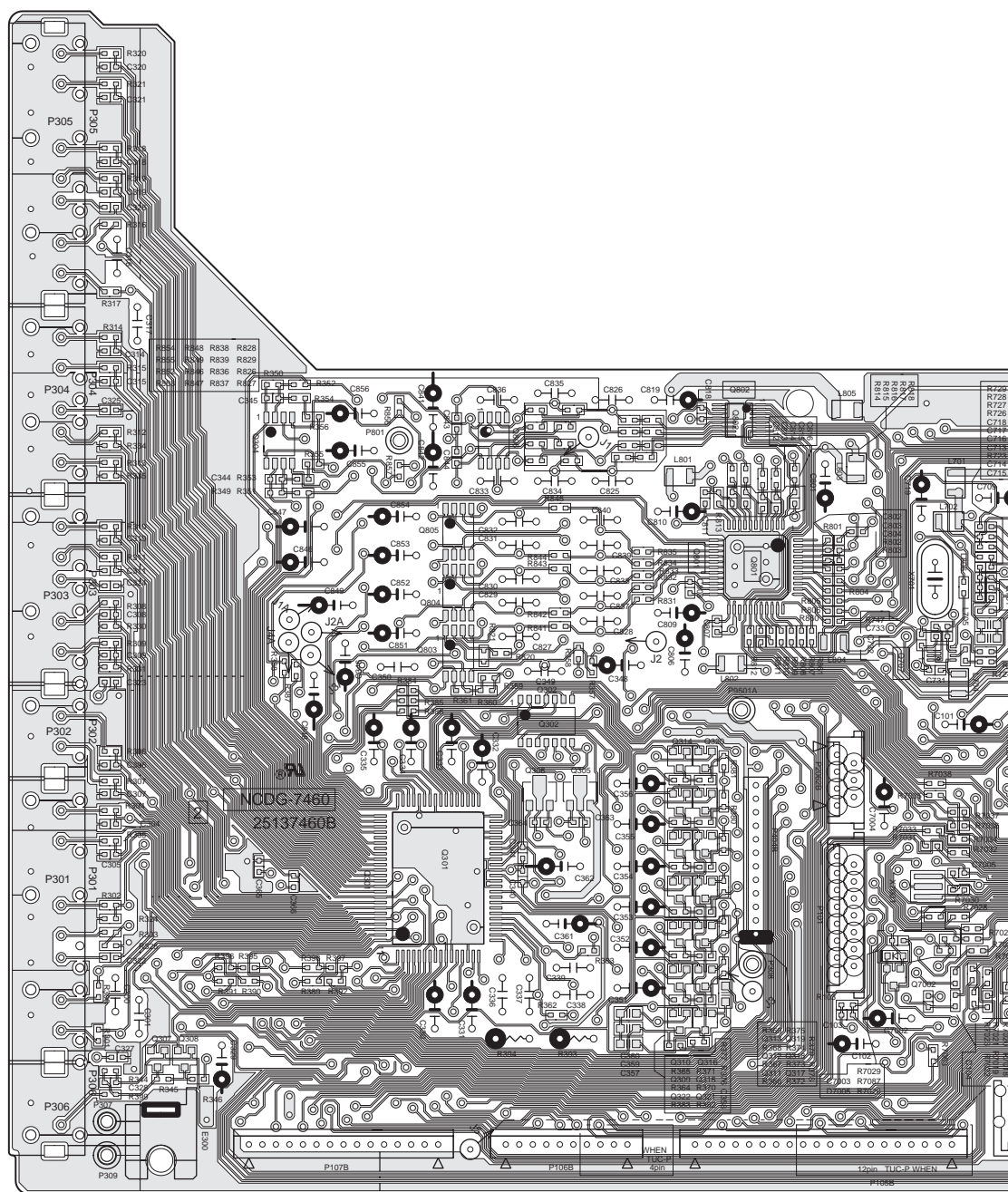
1

2

3

4

5



Pattern: Parts side

U1

Main circuit PC board

A

B

C

D

PRINTED CIRCUIT BOARD VIEW 2-2

DSP section

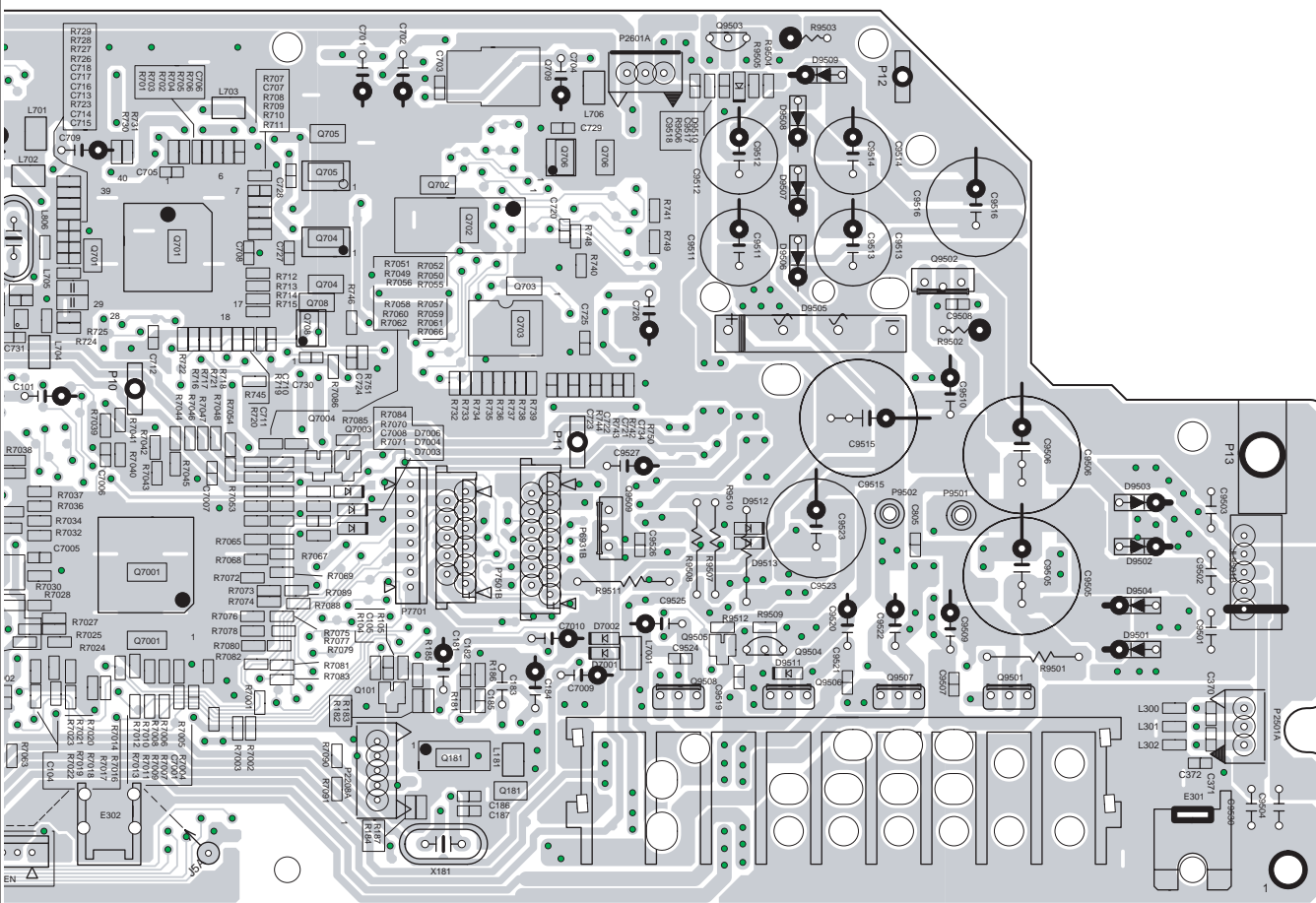
1

2

3

4

5



U1

Main circuit PC board

A

B

C

D

PRINTED CIRCUIT BOARD VIEW 2-1

DSP section

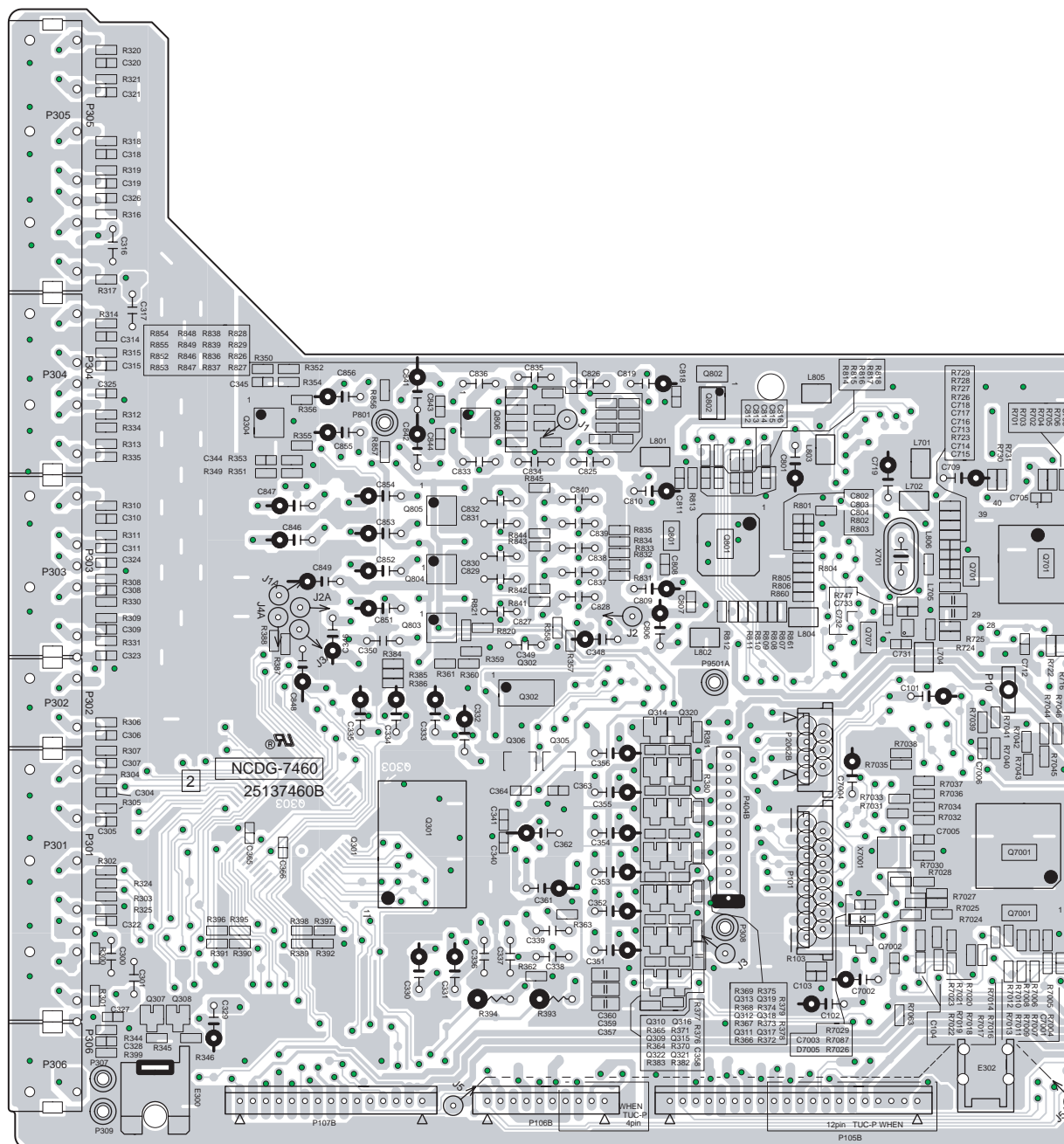
1

2

3

4

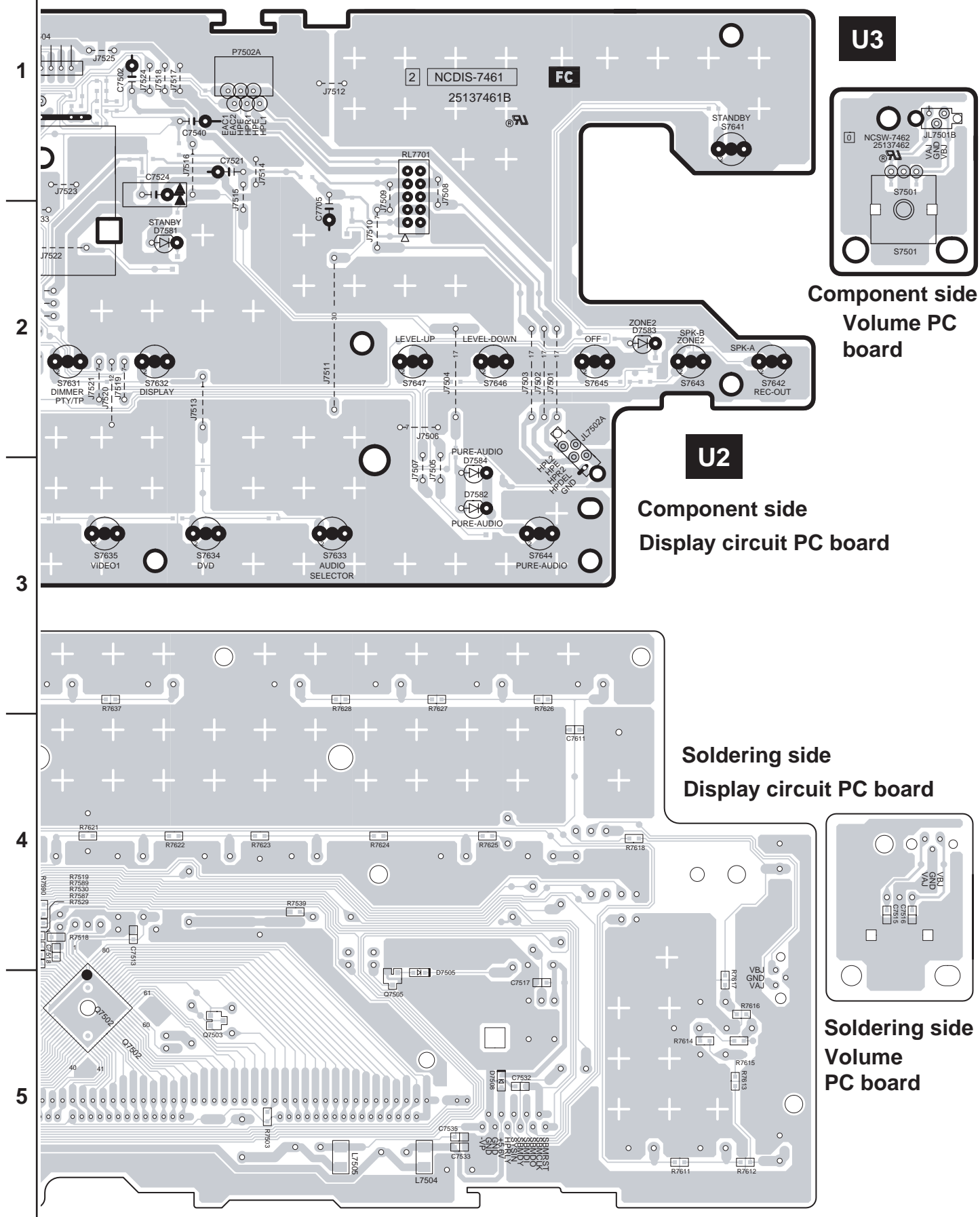
5



U1

Main circuit PC board

PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE 1-2



1



3

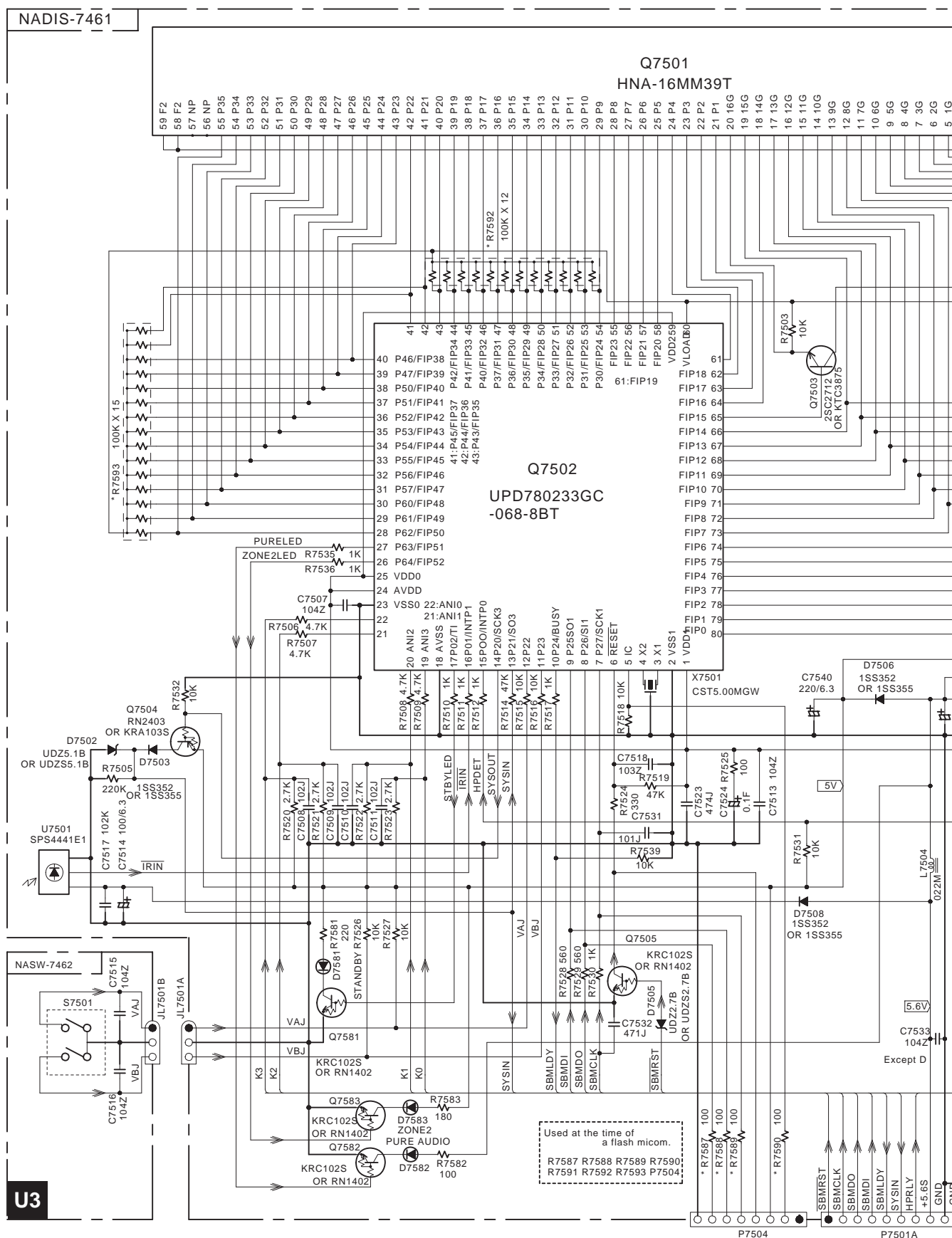
**Display circuit
PC board**



5

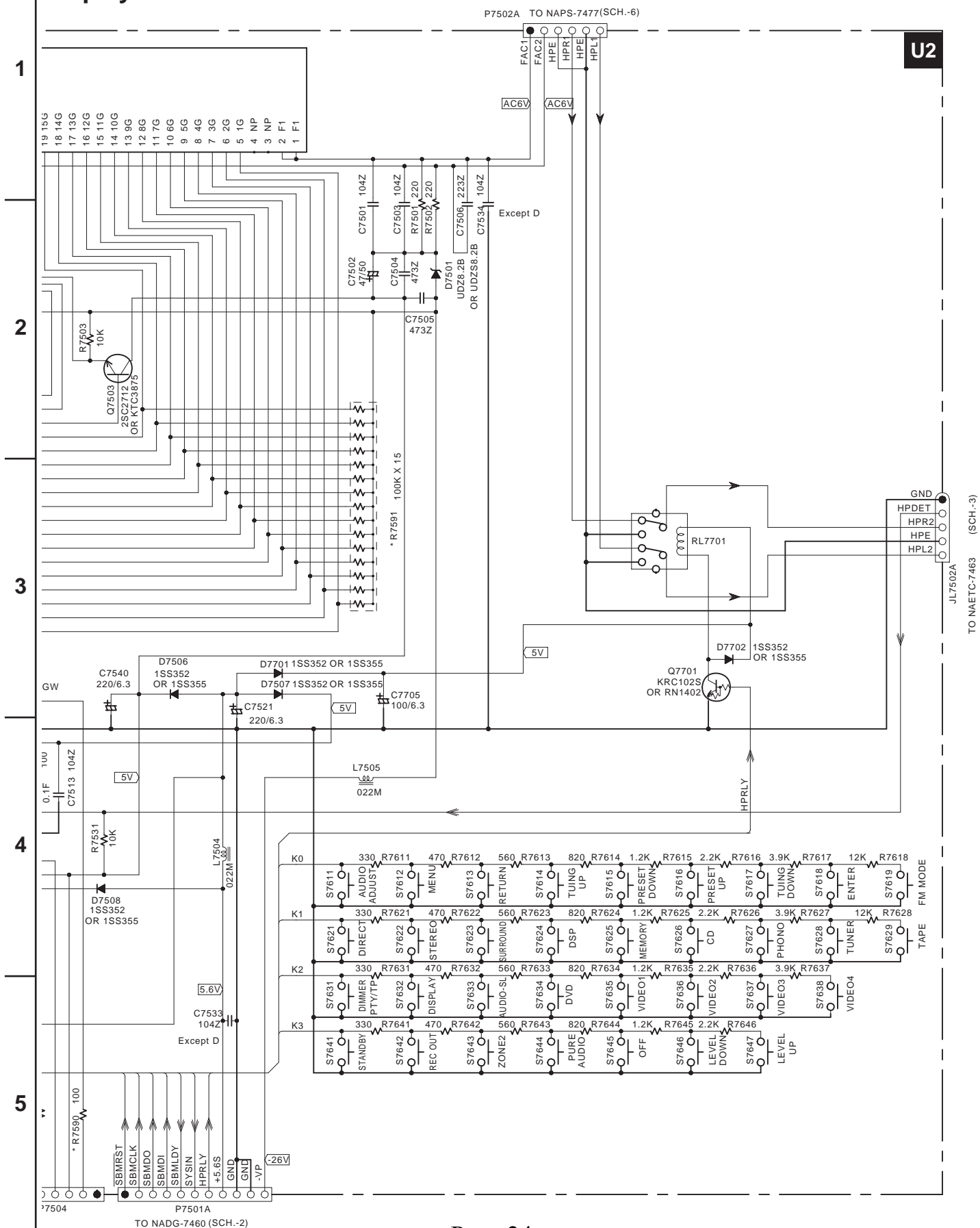
SCHEMATIC DIAGRAM 1-1

Display section



SCHEMATIC DIAGRAM 1-2

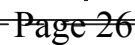
Display section



DSP section 1

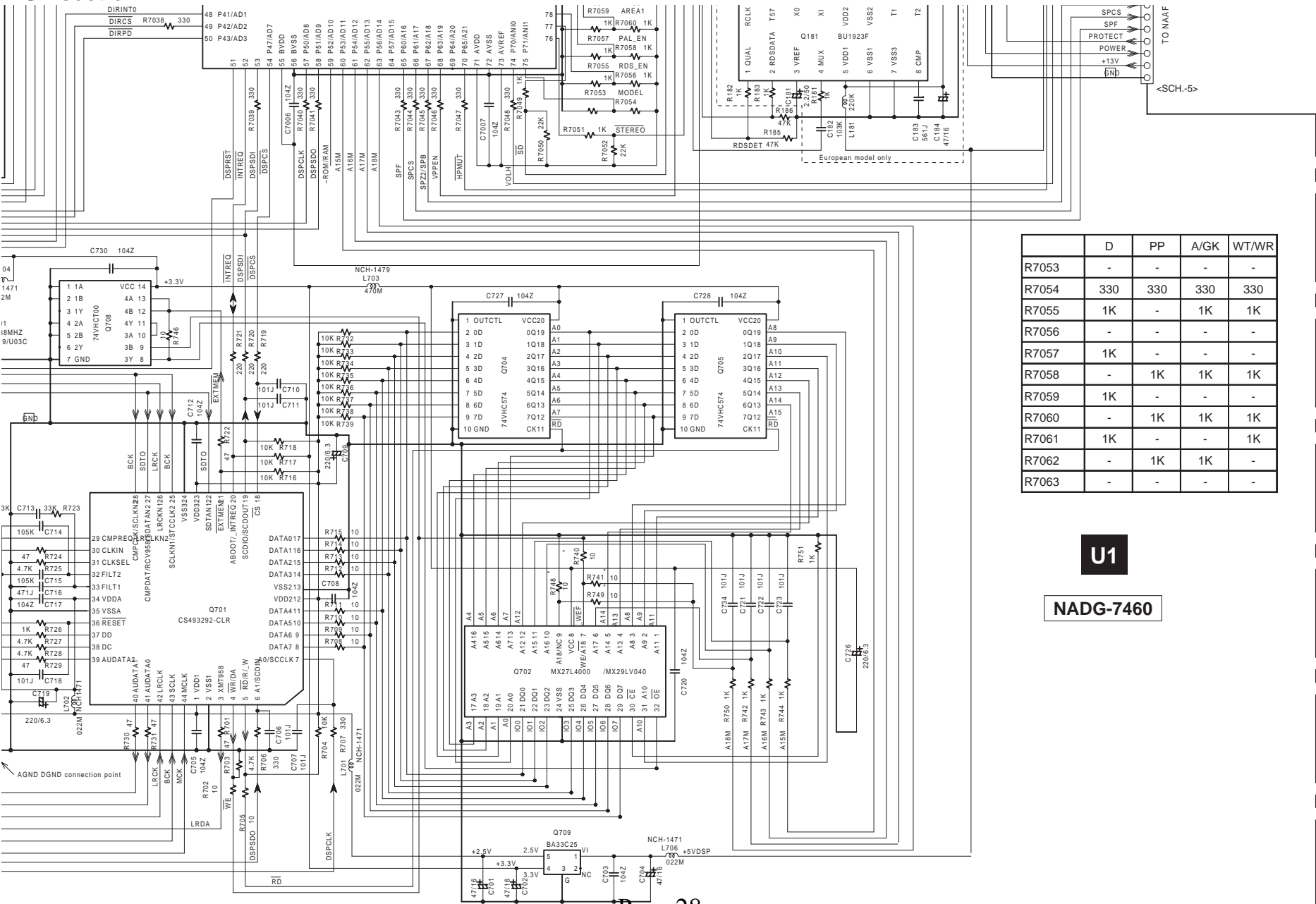


DSP section 2



SCHEMATIC DIAGRAM 2-4

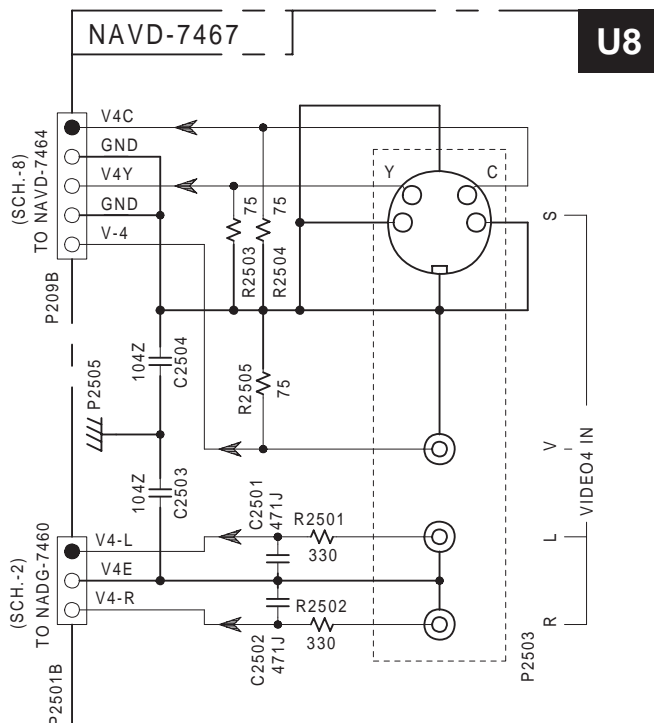
DSP section 4



SCHEMATIC DIAGRAM 3

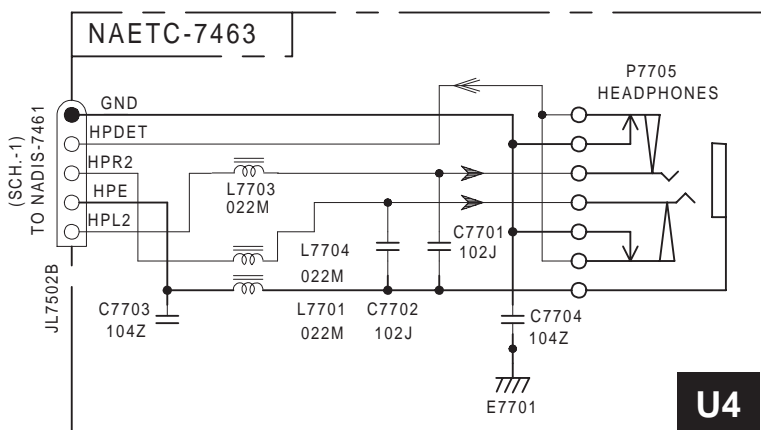
Front panel section

1



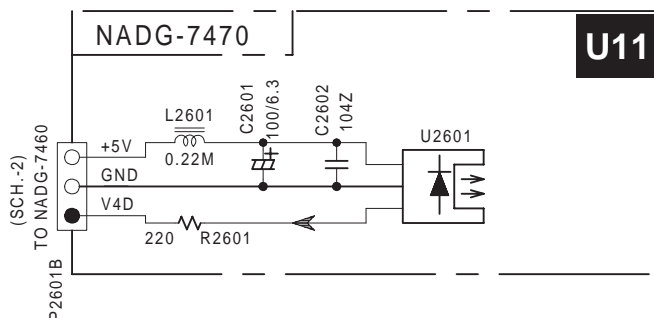
2

3



4

5

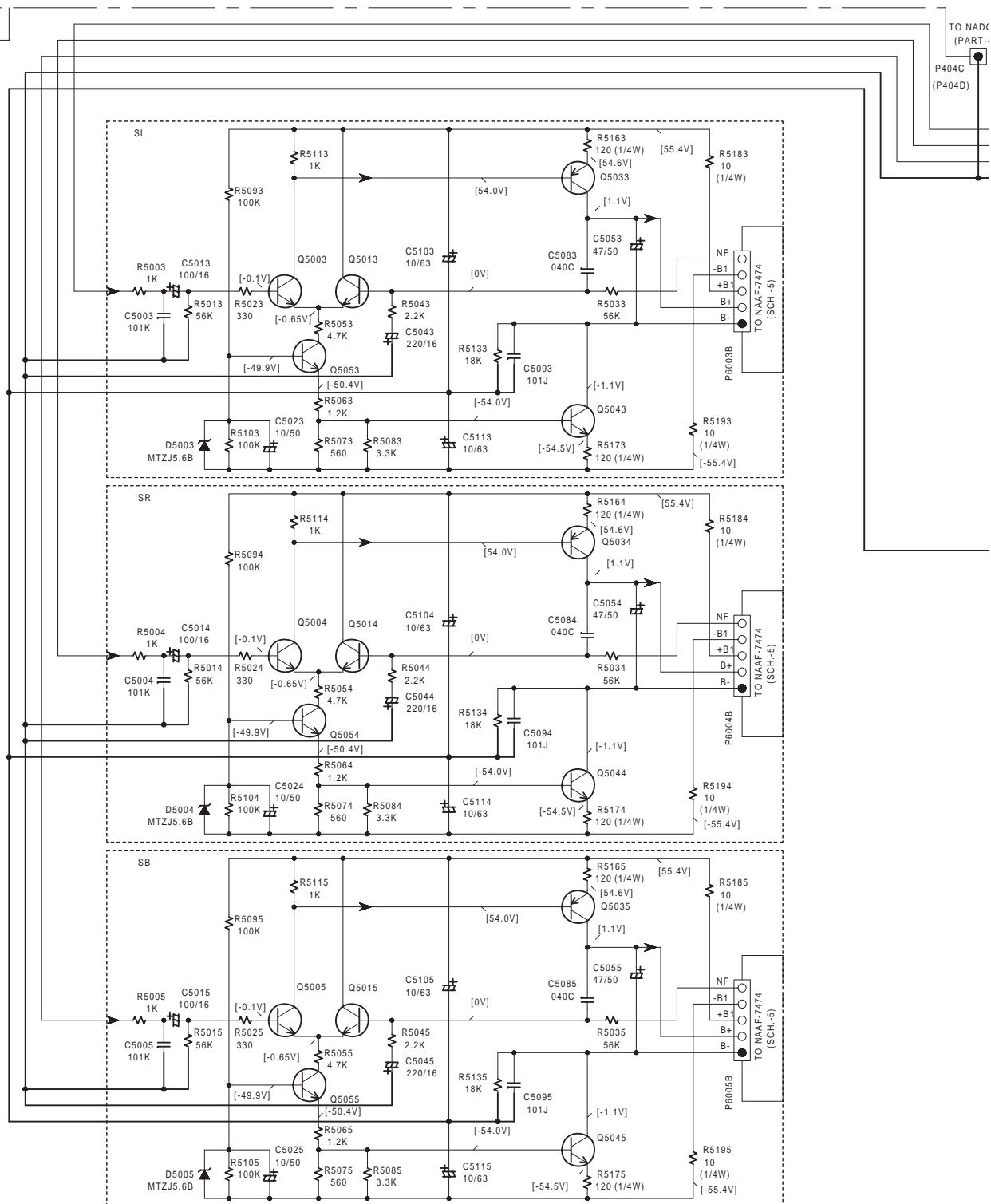


SCHEMATIC DIAGRAM 4-1

Power amplifier section 1

NAAF-7483

U23



SEMICONDUCTORS

NO.	L / R / C	SL / SR / SB
Q5000-04, 5010-14	2SC1775A-E, F OR 2SC1845-E	KTC3200-BL OR 2SC1775A-E, F OR 2SC1845-E, F
Q5020-25	2SA992-E, F	-
Q5030-35	2SA949-Y, O	KTA1024-Y, O OR 2SA949-Y, O
Q5040-45	2SC2229-Y, O	KTC3206-Y, O OR 2SC2229-Y, O

A

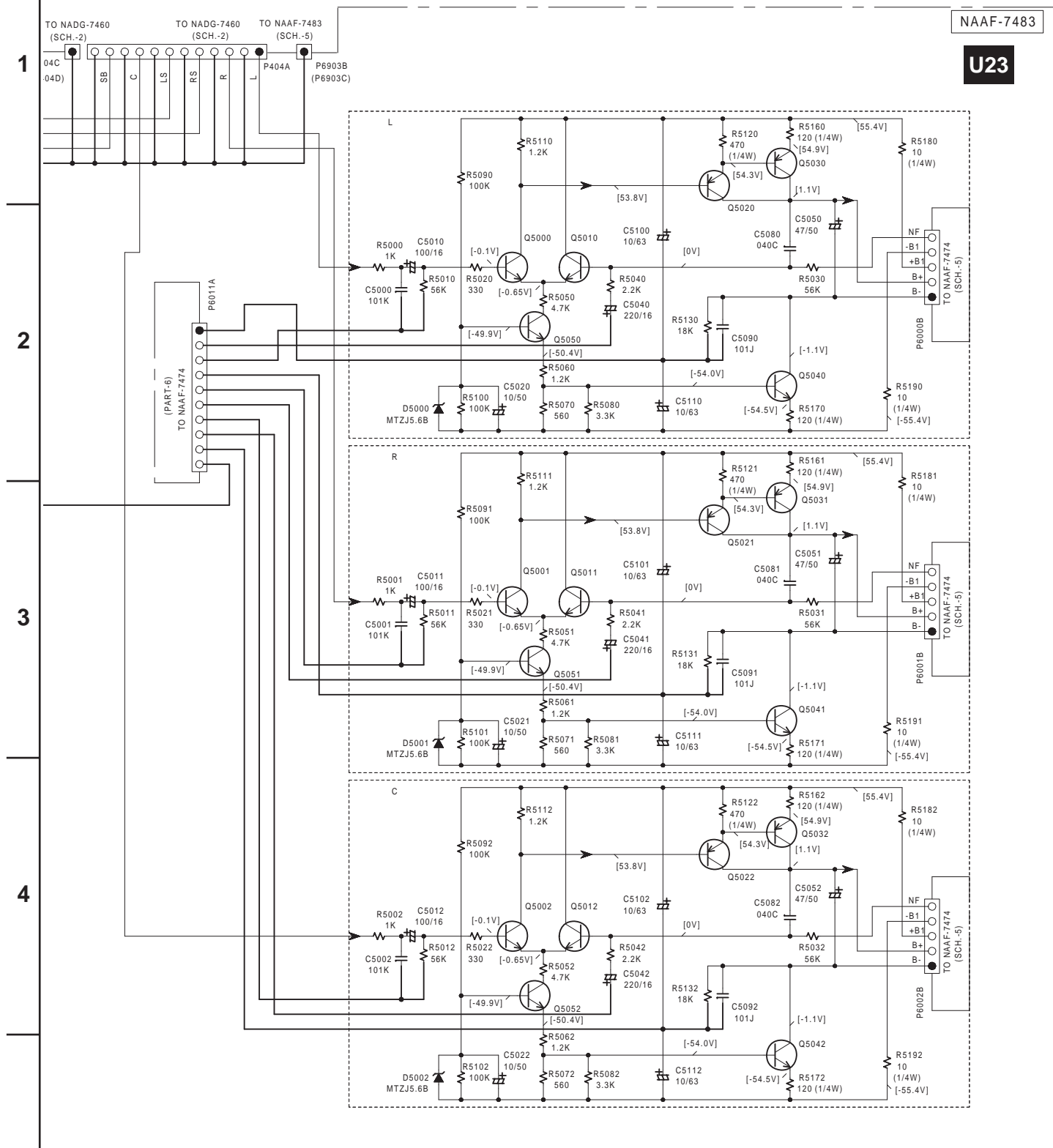
B

C

D

SCHEMATIC DIAGRAM 4-2

Power amplifier section 2



SEMICONDUCTORS

NO.	L / R / C	SL / SR / SB
Q5000-04, 5010-14	2SC1775A-E, F OR 2SC1845-E	KTC3200-BL OR 2SC1775A-E, F OR 2SC1845-E, F
Q5020-25	2SA992-E, F	-
Q5030-35	2SA949-Y, O	KTA1024-Y, O OR 2SA949-Y, O
Q5040-45	2SC2229-Y, O	KTC3206-Y, O OR 2SC2229-Y, O

1

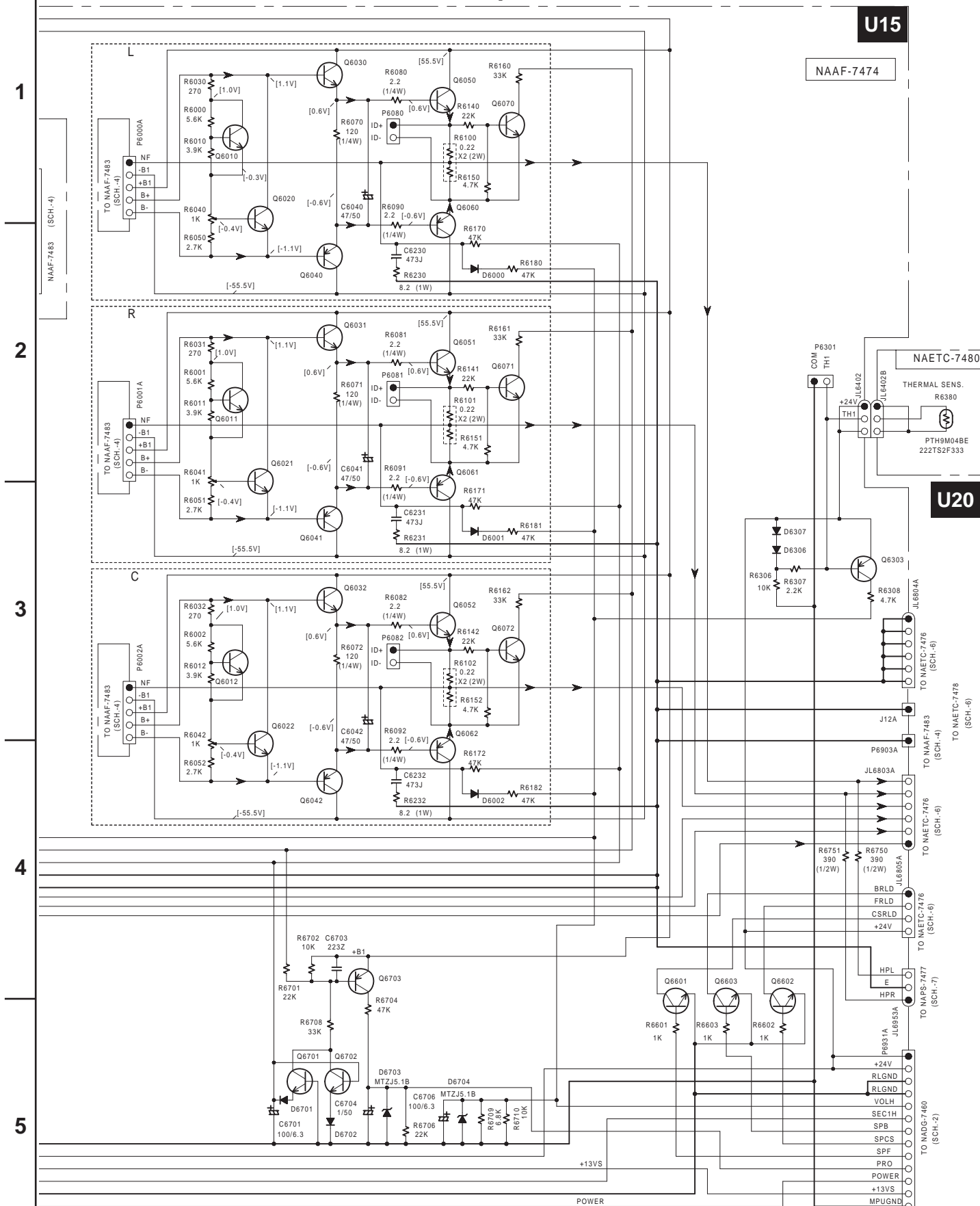


3

4

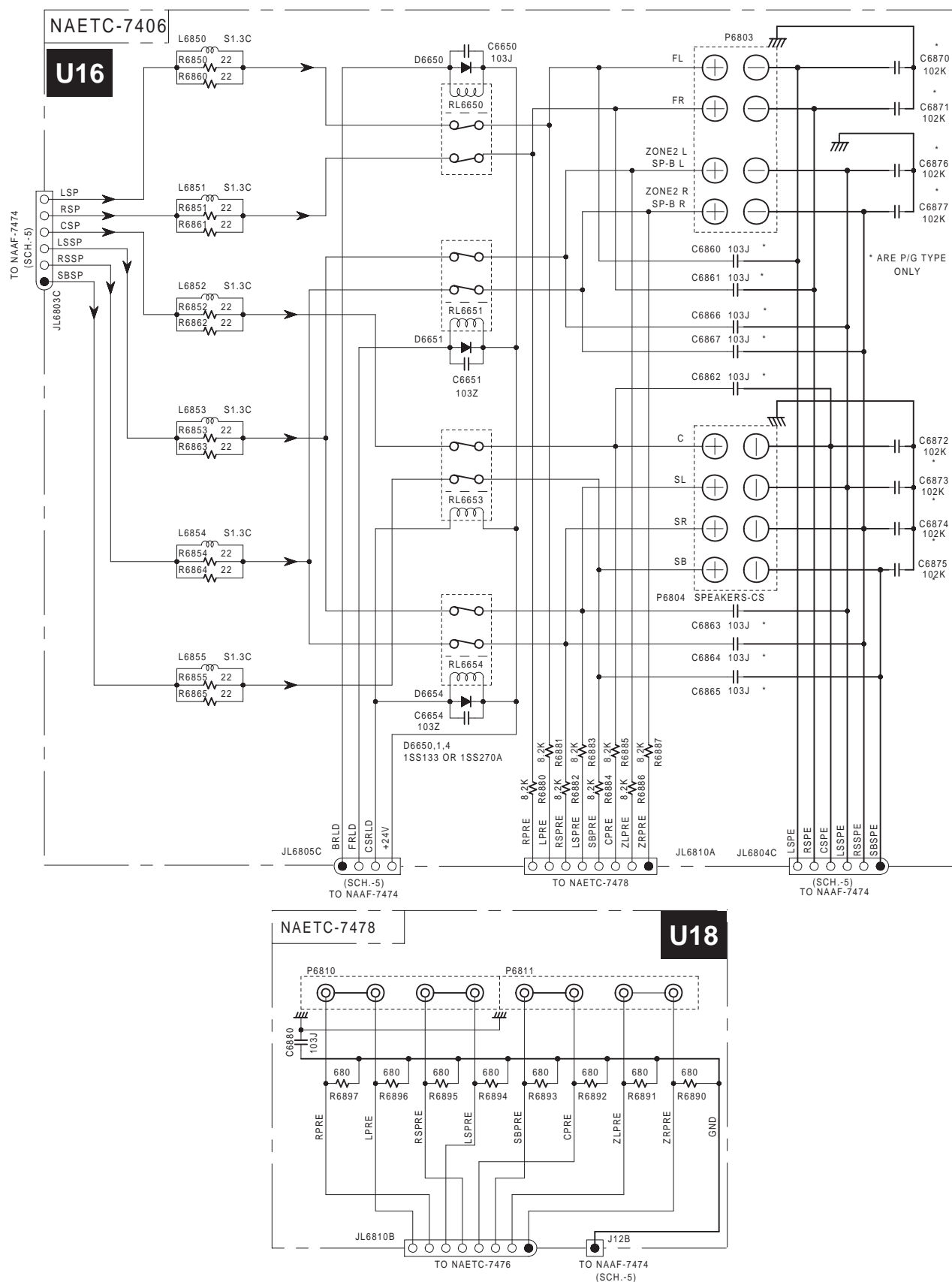
5

SCHEMATIC DIAGRAM 5-2 Power amplifier section4

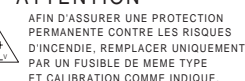


SCHEMATIC DIAGRAM 6

Output terminal section

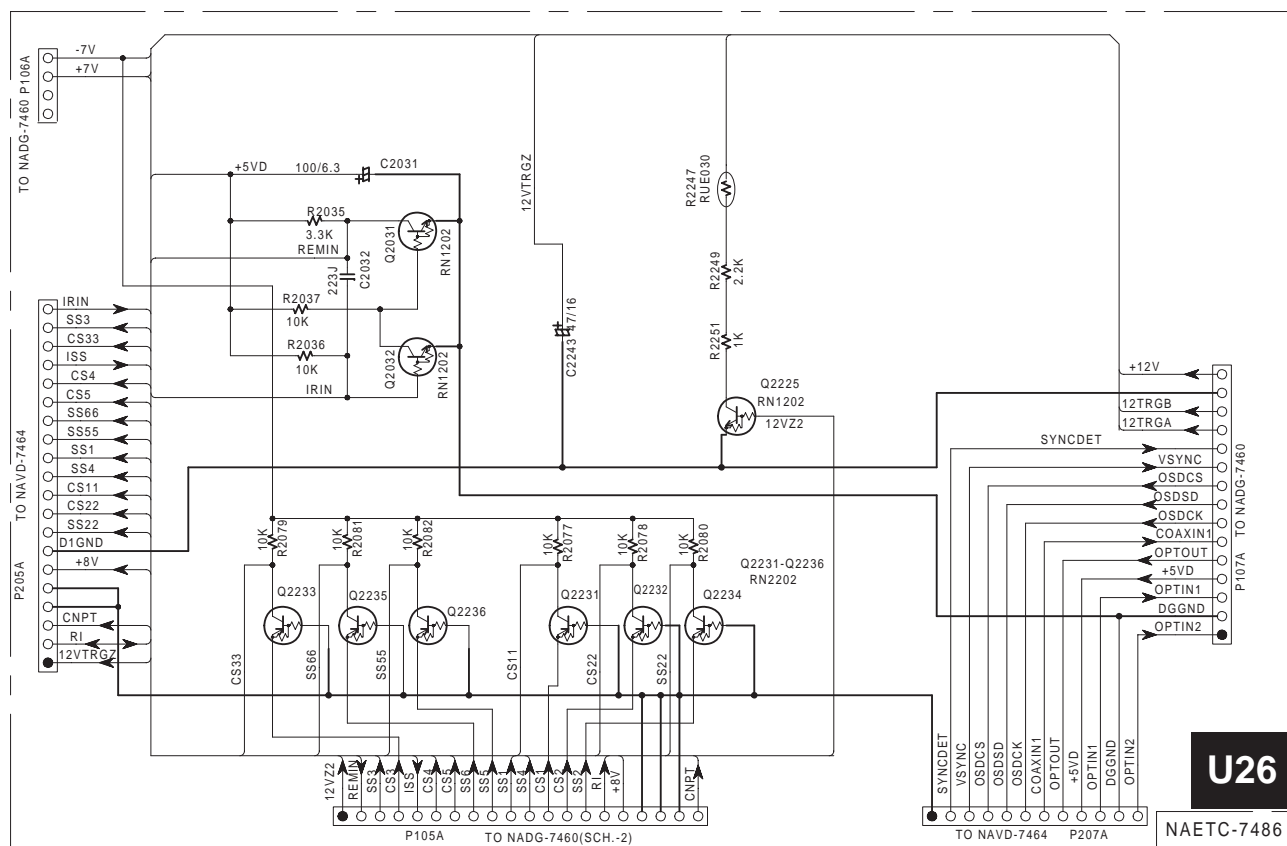
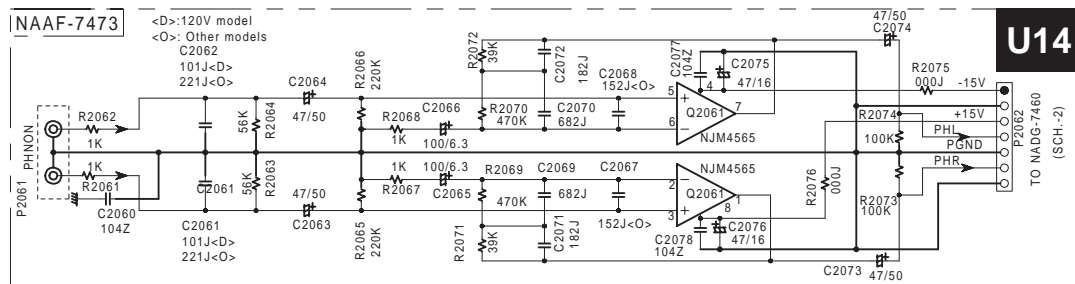


2



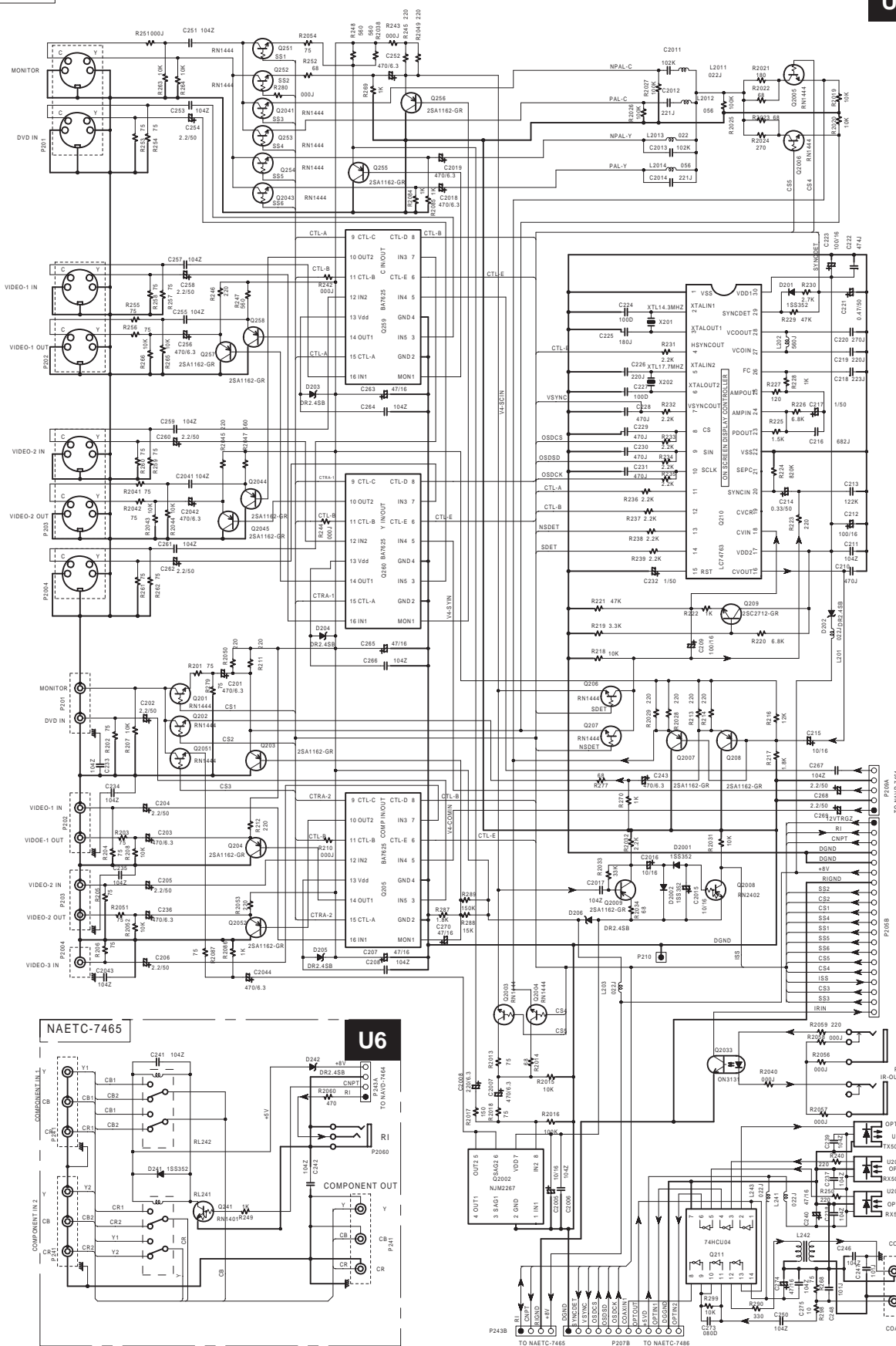
SCHEMATIC DIAGRAM 9

Connector and Equalizer amplifier sections

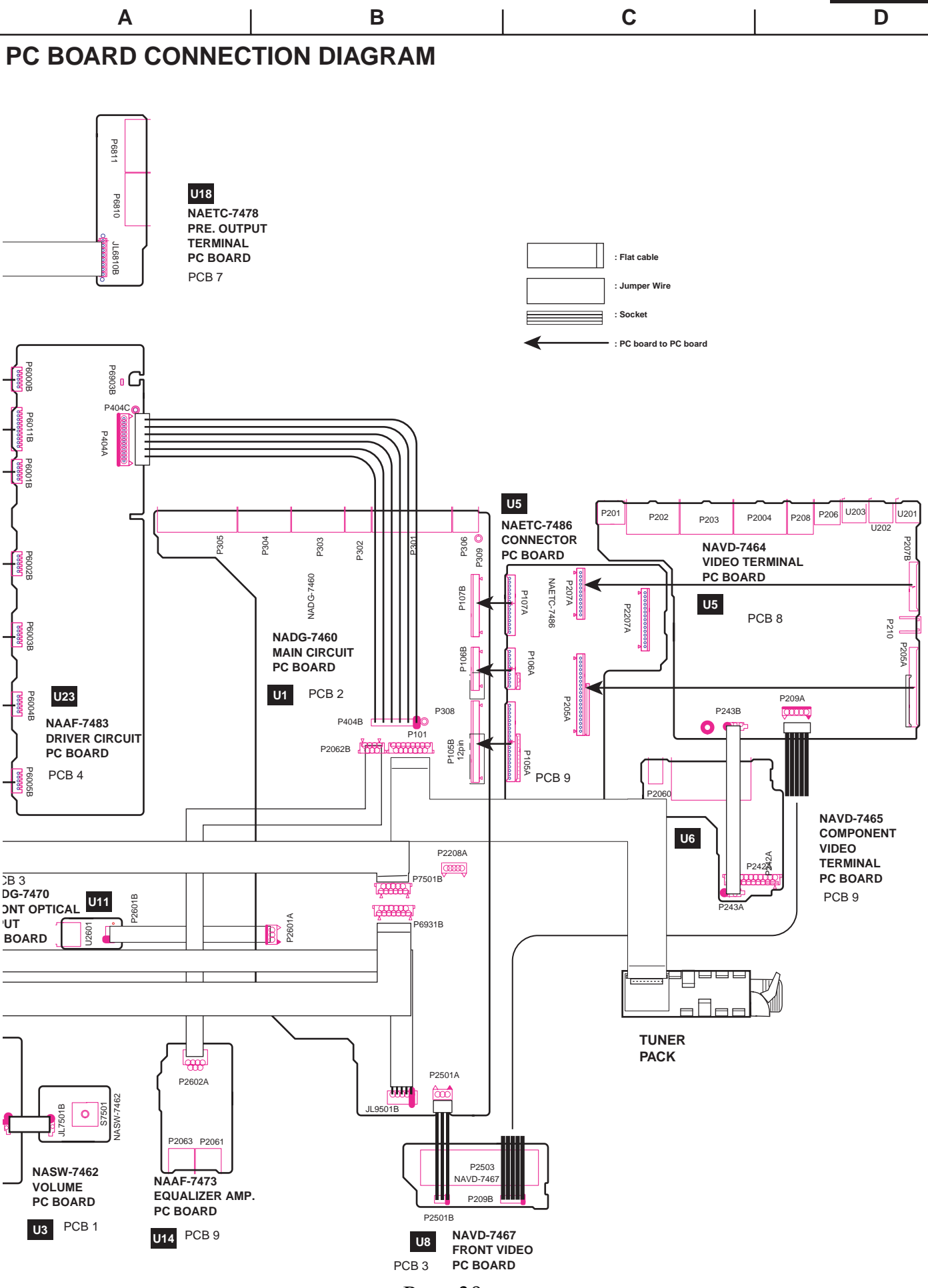


NAVD-7464

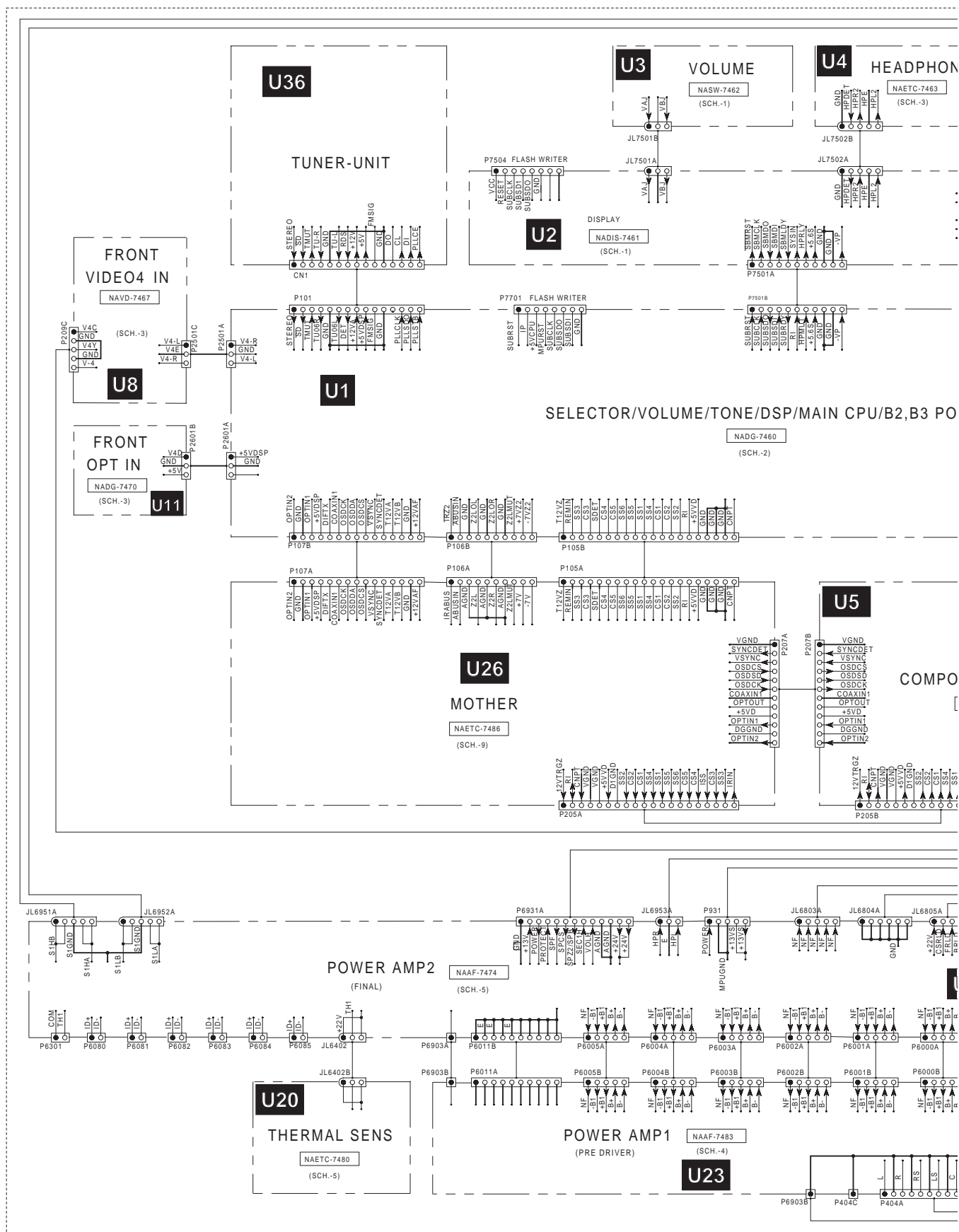
U5



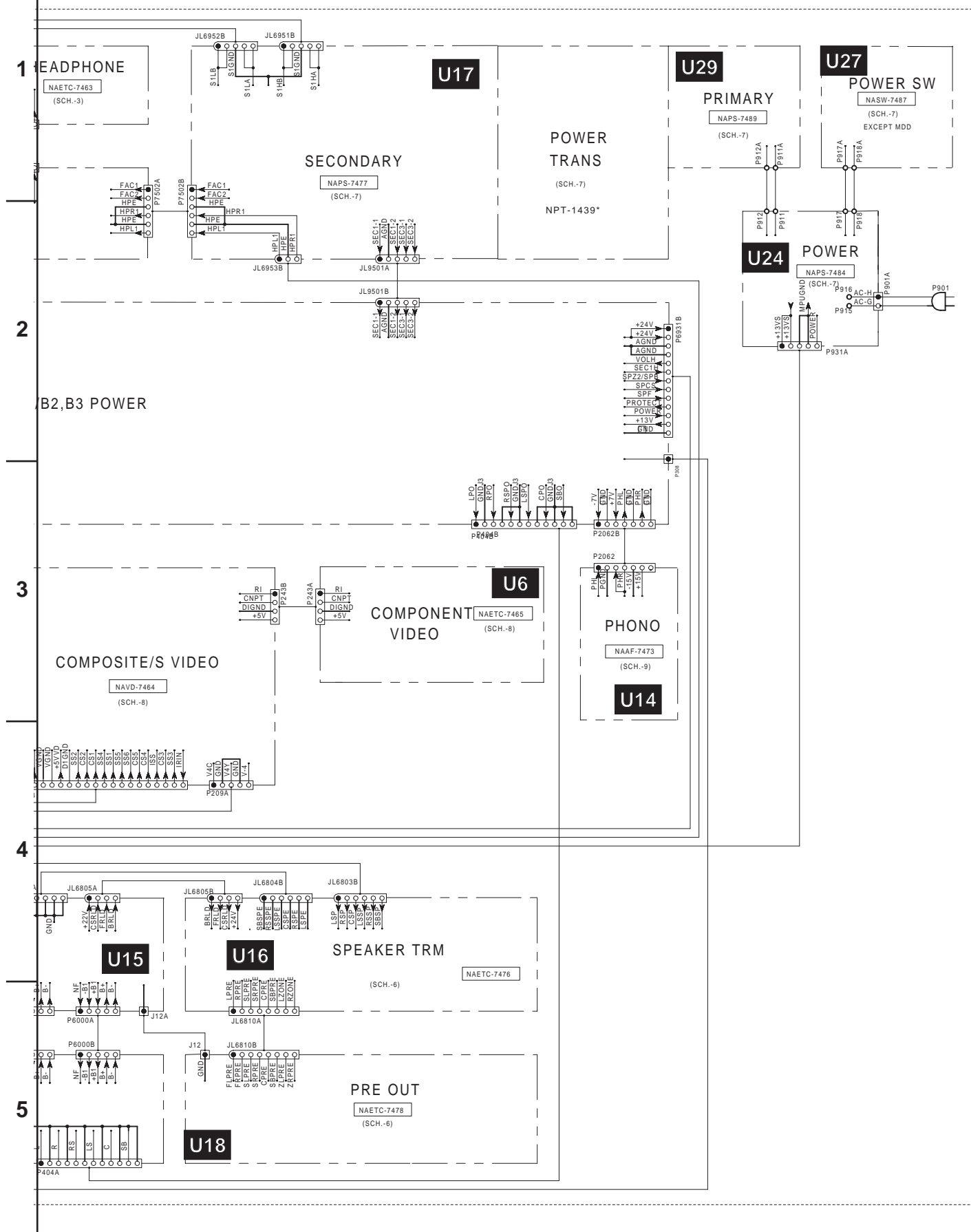




PC BOARD-CONNECTION VIEW



PC BOARD-CONNECTION VIEW



PRINTED CIRCUIT BOARD-PARTS LIST 1

Note:

<P>: European model only

<D>: 120V model only

<O>: Other models except 120V model

MAIN CIRCUIT PC BOARD (NADG-7460-1N/1O/1P/1Q)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q181	22241297R2	BU1923F <P>
Q301	22241761R3	BD3811K1
Q302	22241785R2	BD3812F
Q303	22241787R3	TC9274F-020
Q304	22241383R2,	NJM4565M-D,
	22240489R1NE or	MPC4570G2-T1(MST) or
	22240581R2	NJM4565M
Q305	222780073R2	78L07(SMT)
Q306	222790073R2	79L07(SMT)
Q7001	22241870R3	MPD703033AGC-174-8EU
Q701	22241788R2	CS493292-CLR(6.1ch)
Q702	22241795R3 or	MX27L2000(TX-SR600) or
	22241817R3	MX27L4000TC-20(TXSR600)
Q704,Q705	22274574ER2TO,	TC74VHC574FT,
	22274574ER2ST or	M74VHC574TTR or
	22274574IR2TI	SN74AHC574PWR
Q707	22240935R2	TC7WU04FU
Q709	22241778R2	BA33C25FP
Q801	22241620R3	AK4586
Q802	22241784R2	AK4382A
Q803~Q806	22241383R2,	NJM4565M-D,
	22240489R1NE or	MPC4570G2-T1(MST) or
	22240581R2	NJM4565M
Q9501	222780125	78M12HF
Q9502	222790125	79M12HF
Q9506	22278008DNE	MPC2908HF
Q9507	222780055	78M05HF
Q9508	222780565JRC	78M56(NJM78M56FA)
Q9509	22278033ENE	MPC29M33HF
Transistors		
Q101	2216175R2 or	KTC3875-GR or
	2213145R2	2SC2712-GR <P>
Q307~Q320	2215410R2	RN1441
Q321,Q322	2216220R2 or	KRA102S or
	2214530R2	RN2402
Q7002	2216210R2 or	KRC104S or
	2214490R2	RN1404
Q9503	2215975 or	KTA1266-GR or
	2211455	2SA1015-GR
Q9504	2212855	2SB1068-U
Q9505	2216190R2 or	KRC102S or
	2214470R2	RN1402
Diodes		
D7001~D7003	223234R2 or	1SS352 or
D7005	223269R2	1SS355
D7004	224660624R2,	HZU6.2B,
	224490620R2 or	UDZ6.2B or
	224550620R2	UDZS6.2B
D9501~D9504	22380260,	RL1N4003,
D9506~D9509	22380032 or	1SR139-100 or
	22380035	GP104003E
D9505	22380271F,	D3SBA20,
	22380022F or	RBV402 or
	22380285F	RS403M
D9510	224662704R2 or	HZU27B or
	224552700R2	UDZS27B
D9511	223234R2 or	1SS352 or
	223269R2	1SS355
D9512,D9513	223234R2 or	1SS352 or
	223269R2	1SS355

CIRCUIT NO.	PART NO.	DESCRIPTION
Oscillators		
X181	3010345 or	HQS-3H2-04332-20 or
	3010203	AF6146CG,Crystal <P>
X7001	3010329R2	CSTCV16.00MXJ0C,Ceramic
X701	3010335 or	AT-49H12.288MHz or
	3010327	AT-4912.288MHz,Crystal
Coils		
L181	231237K220R2	NCH-1477 <P>
L300~L302	230955R2	BK1608HS102-T
L7001	231237K220R2	NCH-1477
L701,L702	231237M022R2	NCH-1471
L703	231237K470R2	NCH-1479
L704,L706	231237M022R2	NCH-1471
L705	230958R1	BK1608LM182-T
L801~L805	231237M022R2	NCH-1471
L806	230958R1	BK1608LM182-T
Capacitors		
C101,C102	394680337	3.3uF,50V,Elect.
C181	394680227	2.2uF,50V,Elect. <P>
C183	374725614	560pF+/-5%,50V,Plastic <P>
C184	394644707	47uF,16V,Elect. <P>
C300,C301	374722215	220pF+/-10%,50V,Plastic
C316,C317	374722215	220pF+/-10%,50V,Plastic
C329~C335	393341007	10uF,16V,Elect.
C336,C337	374723324	3300pF+/-5%,50V,Plastic
C338,C339	374725634	0.056uF+/-5%,50V,Plastic
C346,C348	393341007	10uF,16V,Elect.
C349,C350	374722215	220pF+/-10%,50V,Plastic
C351~C356	393344707	47uF,16V,Elect.
C361,C362	394642217	220uF,16V,Elect.
C7002,C7004	394680107	1uF,50V,Elect.
C7009	394621017	100uF,6.3V,Elect. <D>
	394621027	1000uF,6.3V,Elect. <O>
C701,C702	394644707	47uF,16V,Elect.
C7010	394624707	47uF,6.3V,Elect.
C704	394644707	47uF,16V,Elect.
C709,C719	394622217	220uF,6.3V,Elect.
C726	394622217	220uF,6.3V,Elect.
C801,C806	394622217	220uF,6.3V,Elect.
C809	394641007	10uF,16V,Elect.
C810,C819	394622217	220uF,6.3V,Elect.
C825,C826	374724724	4700pF+/-5%,50V,Plastic
C827	374726814	680pF+/-5%,50V,Plastic
C828	374721024	1000pF+/-5%,50V,Plastic
C829,C830	374728214	820pF+/-5%,50V,Plastic
C831,C832	374728214	820pF+/-5%,50V,Plastic
C833~C836	374726814	680pF+/-5%,50V,Plastic
C837	374721524	1500pF+/-5%,50V,Plastic
C838	374721534	0.015uF+/-5%,50V,Plastic
C839,C840	374721524	1500pF+/-5%,50V,Plastic
C841,C842	394642217	220uF,16V,Elect.
C846,C847	393344707	47uF,16V,Elect.
C848,C849	394642217	220uF,16V,Elect.
C851	393341007	10uF,16V,Elect.
C852	393344707	47uF,16V,Elect.
C853~C856	393341007	10uF,16V,Elect.
C9501~C9504	374721044	0.1uF+/-5%,50V,Plastic
C9505	394661027	1000uF,35V,Elect.
C9506	394664717	470uF,35V,Elect.
C9509	394642217	220uF,16V,Elect.
C9510	394642217	220uF,16V,Elect. <D>
	394644717	470uF,16V,Elect. <O>

PRINTED CIRCUIT BOARD-PARTS LIST 2

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors			Transistors		
C9511~C9514	394562217	220uF,35V,Elect.	Q7503	2216175R2 or	KTC3875-GR or
C9515	394544727	4700uF,16V,Elect.		2213145R2	2SC2712-GR
C9516	394674717	470uF,63V,Elect.	Q7504	2216230R2 or	KRA103S or
C9520	394632217	220uF,10V,Elect.		2214540R2	RN2403
C9522	394622217	220uF,6.3V,Elect.	Q7505,Q7581	2216190R2 or	KRC102S or
C9523	394651027	1000uF,25V,Elect.	Q7701	2214470R2	RN1402
C9525,C9527	394641007	10uF,16V,Elect.	Q7582,Q7583	2216190R2 or	KRC102S or
C9530	374721044	0.1uF+/-5%,50V,Plastic		2214470R2	RN1402
Resistors			Diodes		
R393,R394	443522204	22ohm+/-5%,1/2W,Metal oxide	D7501	224490820R2,	UDZ8.2B,
R9501	442621004F	10ohm+/-5%,1W,Metal oxide		224550820R2 or	UDZS8.2B or
R9502	443523304	33ohm+/-5%,1/2W,Metal oxide		224660824R2	HZU8.2B
R9503	443522204	22ohm+/-5%,1/2W,Metal oxide	D7502	224490510R2,	UDZ5.1B,
R9507	452630104F	1ohm+/-5%,1W,Metal		224550510R2 or	UDZS5.1B or
R9510	452630334F	3.3ohm+/-5%,1W,Metal		224660514R2	HZU5.1B
R9511	442623304F	33ohm+/-5%,1W,Metal oxide	D7503	223234R2 or	1SS352 or
Terminals			D7506~D7508	223269R2	1SS355
P301	25045571 or	NPJ-6PDRW386 or	D7505	224490270R2 or	UDZ2.7B or
	25045300	NPJ-6PDBL159		224660274R2	HZU2.7B
P302	25045333	NPJ-2PDBL185	D7581	225290	SEL4110R
P303,P304	25045303 or	NPJ-4PDBL162 or	D7582	225374	SEL2E10C
	25045575	NPJ-4PDRW389	D7583	225291D	SEL4910D-D
P305	25045572 or	NPJ-6PDBRW387 or	D7701,D7702	223234R2 or	1SS352 or
	25045649	NPJ-6PDBRW453		223269R2	1SS355
P306	25045567	NPJ-1PDBL382	Coils		
Sockets			L7504,L7505	231237M022R2	NCH-1471
JL9501B	25050269	NSCT-5P97	Oscillator		
P101	25052211	NSCT-15P2108	X7501	3010242	CST5.00MGW,Ceramic
	25051822	NSCT-15P1609	Capacitors		
P2062B	25052203 or	NSCT-7P2100 or	C7502	394684707	47uF,50V,Elect.
	25051814	NSCT-7P1601	C7514	394621017	100uF,6.3V,Elect.
P404B	2009990718UL	NSAS-26P1005	C7521	394622217	220uF,6.3V,Elect.
P6931B	25052209 or	NSCT-13P2106 or	C7523	375524744	0.47uF+/-5%,50V,Plastic
	25051820	NSCT-13P1607	C7524	3000120 or	FMC0H104Z or
P7501B	25052207 or	NSCT-11P2104 or		3000121	SCDA5R5104A,Super
	25051818	NSCT-11P1605	C7540	355722219	220uF,6.3V,Elect.
Plugs			C7705	394621017	100uF,6.3V,Elect.
P105B	25055712	NPLG-20P668	Relay		
P106B	25055804	NPLG-4P760	RL7701	25065610	NRL-2P1A-DC4.5-156
P107B	25055711	NPLG-15P667	Switches		
P2208A	25055701	NPLG-5P657	S7611~S7619	25035699 or	NPS-111-S662 or
P2501A,P2601A	25055133	NPLG-3P117	S7621~S7629	25035714	NPS-111-S677
Heat sink			S7631~S7638	25035699 or	NPS-111-S662 or
Q9501B	27160500	RAD-165	S7641~S7647	25035714	NPS-111-S677
Cushions			Sockets		
Q801A,Q802A	28141445	(DAC)	JL7501A	25051087	NSCT-3P874
Screws			JL7502A	25051089	NSCT-5P876
Q9501A	82143010	3P+10FN(BC),Pan head	P7501A	25052057 or	NSCT-11P1844 or
Q9506A~Q9508	82143010	3P+10FN(BC),Pan head		25051855	NSCT-11P1642
DISPLAY CIRCUIT PC BOARD (NADIS-7461-1N/10)			P7502A	25052052 or	NSCT-6P1839 or
CIRCUIT NO. PART NO. DESCRIPTION				25051850	NSCT-6P1637
FL tube			Holder		
Q7501	212229	HNA-16MM39T	Q7501A	27190989A	(FL)
Remote sensor			VOLUME PC BOARD (NASW-7462-1N/10)		
U7501	241341 or	SPS-444-1-E1 or	CIRCUIT NO. PART NO. DESCRIPTION		
	241335	SPS-444-1	S7501	25065627	EC12E2425,Rotary encoder
IC			JL7501B	25051087	NSCT-3P874,Socket
Q7502	22241790R3	MPD780232GC-068-8BT			

PRINTED CIRCUIT BOARD-PARTS LIST 3

NOTE: <O>: Other models except 120V model

HEADPHONE TERMINAL PC BOARD (NAETC-7463-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Coils	
L7701	233454M022S	NCH-1452 022M
L7703,L7704	231237M022R2	NCH-1471
	Capacitor	
C7703	374721044	0.1uF+/-5%,50V,Plastic
	Terminal	
P7705	25045514	YKB26-5005
	Socket	
JL7502B	25051089	NSCT-5P876

VIDEO TERMINAL PC BOARD (NAVD-7464-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q2002	22241579	NJM2267D
Q205	22240373	BA7625
Q210	22241779	LC74763-9836
Q211	222740046R2TO	TC74HCU04F
Q259,Q260	22240373	BA7625
	Transistors	
Q2003~Q2006	2216031R2 or 2216032R2	RN1444-A or RN1444-B
Q2007,Q2009	2216185R2 or 2214375R2	KTA1504-GR or 2SA1162-GR
Q2008	2216220R2 or 2214530R2	KRA102S or RN2402
Q201,Q202	2216031R2 or 2216032R2	RN1444-A or RN1444-B
Q203,Q204	2216185R2 or 2214375R2	KTA1504-GR or 2SA1162-GR
Q2041,Q2043	2216031R2 or 2216032R2	RN1444-A or RN1444-B
Q2044	2216185R2 or 2214375R2	KTA1504-GR or 2SA1162-GR
Q2045	2216185R2 or 2214375R2	KTA1504-GR or 2SA1162-GR
Q2051	2216031R2 or 2216032R2	RN1444-A or RN1444-B
Q2052	2216185R2 or 2216185R2	KTA1504-GR or KTA1504-GR
Q206,Q207	2216031R2 or 2216032R2	RN1444-A or RN1444-B
Q251~Q254	2216032R2	RN1444-B
Q208	2216185R2 or	KTA1504-GR or
Q255~Q258	2214375R2	2SA1162-GR
Q209	2216175R2 or 2213145R2	KTC3875-GR or 2SC2712-GR
	Photo coupler	
Q2033	24120080	PC817X
U201,U202	24120083 or 24120086	GP1FA550RZ or GP1FA551RZ
U203	24120082 or 24120085	GP1FA550TZ or GP1FA551TZ

	Diodes	
D2001,D2002	223234R2 or 223269R2	1SS352 or 1SS355
D201	223234R2 or 223269R2	1SS352 or 1SS355
D202~D205	224490240R2 or 224370240R2	UDZ2.4B or RD2.4SB
D206	224490240R2 or 224370240R2	UDZ2.4B or RD2.4SB

CIRCUIT NO.	PART NO.	DESCRIPTION
	Coils	
L201	231237M022R2	NCH-1471
L2011~L2014	231237K022R2	NCH-1471
L202	231292J056R2	NCH-1572
L203,L241	231237M022R2	NCH-1471
L242	232136	NSRF-2046
L243	231237M022R2	NCH-1471
	Oscillators	
X201	3010363	HC-49/U0314.318M
X202	3010364	HC-49/U0317.734M <O>
	Capacitors	
C2005	394644707	47uF,16V,Elect.
C2007	394624717	470uF,6.3V,Elect.
C2008	394622217	220uF,6.3V,Elect.
C201,C203	394624717	470uF,6.3V,Elect.
C2015,C2016	394641007	10uF,16V,Elect.
C2018,C2019	394624717	470uF,6.3V,Elect.
C202,C204	394680227	2.2uF,50V,Elect.
C2042	394624717	470uF,6.3V,Elect.
C2044	394624717	470uF,6.3V,Elect.
C205	394680227	2.2uF,50V,Elect.
C206	394680227	2.2uF,50V,Elect.
C207,C240	394644707	47uF,16V,Elect.
C209,C212	394641017	100uF,16V,Elect.
C214	354783399	0.33uF,50V,Elect.
C215,C223	394641017	100uF,16V,Elect.
C216	374726824	6800pF+/-5%,50V,Plastic
C217,C232	354780109	1uF,50V,Elect.
C218	374722234	0.022uF+/-5%,50V,Plastic
C221	354784799	0.47uF,50V,Elect.
C222	375524744	0.47uF+/-5%,50V,Plastic
C236	394624717	470uF,6.3V,Elect.
C243	394624717	470uF,6.3V,Elect.
C252,C256	394624717	470uF,6.3V,Elect.
C254,C258	394680227	2.2uF,50V,Elect.
C260	394680227	2.2uF,50V,Elect.
C262	394680227	2.2uF,50V,Elect.
C263,C265	394644707	47uF,16V,Elect.
C268,C269	394680227	2.2uF,50V,Elect.
C270,C274	394644707	47uF,16V,Elect.
	Terminals	
P2004	25045682	NPJ-5PDBY479
P201~P203	25045681	NPJ-10PDBY478
P206	25045647	HSJ1002-01-1020
P208	25045688	NPJ-2PDO485
	Sockets	
P205B	25051241	NSCT-20P1031
P207B	25051237	NSCT-12P1027
P243B	25051088	NSCT-4P875
	Plug	
P209A	25055135	NPLG-5P119

COMPONENT VIDEO PC BOARD (NAVD-7465-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistor	
Q241	2216175R2 or 2213145R2	KTC3875-GR or 2SC2712-GR
	Diodes	
D241	223234R2 or 223269R2	1SS352 or 1SS355
D242	224490240R2 or 224370240R2	UDZ2.4B or RD2.4SB

PRINTED CIRCUIT BOARD-PARTS LIST 4

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (hfe) as the original type.

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Relays			Transistors	
RL241,RL242	25065610	NRL-2P1A-DC4.5-156	Q6010~Q6015	2213284 or	2SC1740S-R or
	Terminals		Q6020~Q6025	2213285	2SC1740S-S
P2060	25045504	NPJ-1PDBL319	Q6030~Q6032	2203010	2SC5171
P241	25045686 or	NPJ-9PDGLR483 or	Q6033~Q6035	2203434 or	KTD2061-Y or
	25045690	NPJ-9PDGLR487		2203010	2SC5171
	Socket		Q6040~Q6042	2203000	2SA1930
P243A	25051088	NSCT-4P875	Q6043~Q6045	2203424 or	KTB1369-Y or
				2203000	2SA1930
FRONT VIDEO PC BOARD (NAVD-7467-1N/1O)			Q6050~Q6052	2202823 or	* 2SC5200-O or
CIRCUIT NO.	PART NO.	DESCRIPTION		2202822	* 2SC5200-R
	Terminal		Q6053~Q6055	2203683,	* MN150S-O,
P2503	25045680	NPJ-7PDB477		2203684,	* MN150S-Y,
	Sockets			2203686,	* MN150S-P,
P209B	2009990434UL	NSAS-10P0578		2202823 or	* 2SC5200-O or
P2501B	2001320610	NSAS-6P0299		2202822	* 2SC5200-R
FRONT OPTICAL INPUT PC BOARD (NADG-7470-1N/1O)			Q6060~Q6062	2202813 or	* 2SA1943-O or
CIRCUIT NO.	PART NO.	DESCRIPTION		2202812	* 2SA1943-R
	Photo coupler		Q6063~Q6065	2203693,	* MP150S-O,
U2601	24120083 or	GP1FA550RZ or		2203694,	* MP150S-Y,
	24120086	GP1FA551RZ		2203696,	* MP150S-P,
	Coil			2202813 or	* 2SA1943-O or
L2601	231237M022R2	NCH-1471		2202812	* 2SA1943-R
	Capacitor		Q6070~Q6075	2214984 or	2SC2631-R or
C2601	394621017	100uF,6.3V,Elect.		2214985	2SC2631-S
	Socket		Q6303	2215995	KTA1267-GR,
P2601B	2009990249	NSAS-6P0362		2213354	2SA933S-R or
				2213355	2SA933S-S
EQUALIZER AMPLIFIER PC BOARD (NAAF-7473-1N/1O)			Q6601~Q6603	2215864	KTC3199-GR
CIRCUIT NO.	PART NO.	DESCRIPTION		2212115,	2SC2458-GR,
	IC			2213284 or	2SC1740S-R or
Q2061	22241383R2	NJM4565M-D		2213285	2SC1740S-S
	Capacitors		Q6701~Q6703	2215896,	KTC3200-BL,
C2063,C2064	354784709	47uF,50V,Elect.		2215895,	KTC3200-GR,
C2065,C2066	354722219	220uF,6.3V,Elect.		2210755,	2SC1775A-E,
C2069,C2070	374726824	6800pF+/-5%,50V,Plastic		2210756,	2SC1775A-F,
C2071,C2072	374721824	1800pF+/-5%,50V,Plastic		2211732 or	2SC1845-F or
C2073,C2074	354784709	47uF,50V,Elect.		2211733	2SC1845-E
C2075,C2076	354744709	47uF,16V,Elect.	Q6901	2215864	KTC3199-GR
C2223	394641017	100uF,16V,Elect.		2212115,	2SC2458-GR,
C2225~C2228	394680107	1uF,50V,Elect.		2213284 or	2SC1740S-R or
	Terminals			2213285	2SC1740S-S
P2061	25045702	NPJ-1PDR497		Diodes	
P2063	25045704	NPJ-1PDW499	D6000~D6005	223163,	1SS133,
	Sockets		D6306,D6307	223205 or	1SS270A or
P2062	25052240	NSCT-7P2137	D6701,D6702	223222	WG713A
	Plate		D6703,D6704	224470512	MTZJ5.1B
P2064	27150478A	Shield	D6904,D6905	22380273	RS804M
			D6906	223163,	1SS133,
				223205 or	1SS270A or
				223222	WG713A
				Capacitors	
			C6040~C6045	394684707	47uF,50V,Elect.
			C6230~C6235	374724734	0.047uF+/-5%,50V,Plastic
			C6701,C6706	394621017	100uF,6.3V,Elect.
			C6704	394680107	1uF,50V,Elect.
			C6708	374722234	0.022uF+/-5%,50V,Plastic
			C6901,C6902	3504373	15000uF,71V,Elect.
			C6904,C6905	374733344	0.033uF+/-5%,50V,Plastic
			C6906,C6907	374721044	0.1uF+/-5%,50V,Plastic

PRINTED CIRCUIT BOARD-PARTS LIST 5

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Resistors			Terminals		
R6040~R6045	5210258	N06HR1KBC,Trimming	P6803	25060328	NTM-8PDMN259 <D>
R6070~R6075	415471214	120ohm+/-5%,1/4W,NF carbon		25060329	NTM-8PDMN260 <O>
R6080~R6085	415470224	2.2ohm+/-5%,1/4W,NF carbon	P6804	25060326	NTM-8PDMN257 <D>
R6090~R6095	415470224	2.2ohm+/-5%,1/4W,NF carbon		25060327	NTM-8PDMN258 <O>
R6100~R6105	4000201,	RF-5EGKR22,	Sockets		
	4000132 or	RGC55 0.22 or	JL6803C	25050283	NSCT-6P111
	4500245	BPR55FK0.22,Metal plate	JL6804C	25050283	NSCT-6P111
R6230~R6235	453630824	8.2ohm+/-5%,1W,Metal	JL6805C	25050281	NSCT-4P109
R6750,R6751	443523914	390ohm+/-5%,1/2W,Metal oxide	JL6810A	25051112	NSCT-8P899
Fuse holders			SECONDARY CIRCUIT PC BOARD (NAPS-7477-1N/1O)		
F6901A,F6901B	250113	⚠ SN5051<D>	CIRCUIT NO.	PART NO.	DESCRIPTION
	25052133	⚠ NSCT-1P2031 <O>	Capacitor		
F6902A,F6902B	250113	⚠ SN5051<D>	C9591	374721044	0.1uF+/-5%,50V,Plastic
	25052133	⚠ NSCT-1P2031 <O>	Resistors		
Fuse label			R9591,R9592	453530104	1ohm+/-5%,1/2W,Metal
F6901C	29362325	12A/250V <D>	R9594	453530564	5.6ohm+/-5%,1/2W,Metal <D>
	29362801	T10AL250V <O>		453530824	8.2ohm+/-5%,1/2W,Metal <O>
Relays			Fuse holders		
RL6901	25065584,	NRL-1P10A-DC12-140,	F9501A,F9501B	25052133T	NSCT-1P2031
RL6902	25065516 or	NRL-1P10A-DC12-097 or	Fuse label		
	25065588	NRL-1P10A-DC12-143	F9501C	29361747	T2.5AL250V <O>
Sockets			Sockets		
JL6402A	25051087	NSCT-3P874	JL6951B	25051109	NSCT-5P896
JL6803A,JL6804	25051110	NSCT-6P897	JL6952B	25051109	NSCT-5P896
JL6805A	25051108	NSCT-4P895	JL6953B	25051087	NSCT-3P874
JL6951A	25051109	NSCT-5P896	JL9501A	25051109	NSCT-5P896
JL6952A	25051109	NSCT-5P896	P7502B	25052052 or	NSCT-6P1839 or
JL6953A	25051087	NSCT-3P874		25051850	NSCT-6P1637
P6931A	25052209	NSCT-13P2106	PREOUTPUT TERMINAL PC BOARD (NAETC-7478-1N/1O)		
Plugs			CIRCUIT NO.	PART NO.	DESCRIPTION
P6000A~P6005A	25056010	NPLG-5P0960	Capacitor		
P6011A	25056015	NPLG-10P0965	C6880	374721034	0.01uF+/-5%,50V,Plastic
P6080~P6085	25055038	NPLG-2P29	Terminals		
P6301	25055038	NPLG-2P29	P6810	25045575	NPJ-4PDRW389
P931	25055701	NPLG-5P657	P6811	25045694	NPJ-4PDBRW491
Heat sink			Socket		
D6903A	27160499	RAD-164	JL6810B	25051112	NSCT-8P899
Bar			THERMAL DETECTOR PC BOARD (NAETC-7480-1N/1O)		
C6901A	27141817	BUS	CIRCUIT NO.	PART NO.	DESCRIPTION
Screws			Thermistor		
D6903B,D6904B	82143010	3P+10FN(BC),Pan head	R6380	4000153	PTH9M04BF222TS2F333
Clamps			Socket		
P6840~P6842	260226	CP-2S	JL6402B	25051087	NSCT-3P874
SPEAKER TERMINAL PC BOARD (NAETC-7476-1N/1O)					
CIRCUIT NO.	PART NO.	DESCRIPTION	<div><p>NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.</p><p>Note: <D>: 120V model only <O>: Other models except 120V model</p></div>		
Diodes					
D6650,D6651	223163,	1SS133,			
D6654	223205 or	1SS270A or			
	223222	WG713A			
Coils					
L6850~L6855	231176S	S-1.3C			
Capacitors					
C6650	374721034	0.01uF+/-5%,50V,Plastic			
C6860~C6867	374721034	0.01uF+/-5%,50V,Plastic <O>			
Relays					
RL6650,RL6651	25065563,	NRL-2P5A-DC24-129,			
RL6653,RL6654	25065517 or	NRL-2P5A-DC24-098 or			
	25065586	NRL-2P5A-DC24-142			

PRINTED CIRCUIT BOARD-PARTS LIST 6

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (hfe) as the original type.

DRIVER CIRCUIT PC BOARD (NAAF-7483-1N/1O)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q5000~Q5002	2211733,	* 2SC1845-E,
Q5010~Q5012	2210755 or	* 2SC1775A-E or
	2210756,	* 2SC1775A-F,
Q5003~Q5005	2215896,	* KTC3200-BL,
Q5013~Q5015	2210755,	* 2SC1775A-E,
	2210756 or	* 2SC1775A-F or
	2211733	* 2SC1845-E
Q5020~Q5022	2211793 or	2SA992-E or
	2211792	2SA992-F
Q5030~Q5032	2211354 or	2SA949-Y or
	2211353	2SA949-O
Q5033~Q5035	2215844,	KTA1024-Y,
	2211353,	2SA949-O,
	2211354 or	2SA949-Y or
	2215843	KTA1024-O
Q5040~Q5042	2211634 or	2SC2229-Y or
	2211633	2SC2229-O
Q5043~Q5045	2215854,	KTC3206-Y,
	2211633,	2SC2229-O,
	2211634 or	2SC2229-Y or
	2215853	KTC3206-O
Q5050~Q5052	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Q5053~Q5055	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Diodes		
D5000~D5005	224470562	MTZJ5.6B
Capacitors		
C5000~C5005	374721015	100pF+/-10%,50V,Plastic
C5010~C5015	393341017	100uF,16V,Elect.
C5020~C5025	394681007	10uF,50V,Elect.
C5040~C5045	393342217	220uF,16V,Elect.
C5050~C5055	394684707	47uF,50V,Elect.
C5100~C5105	394691007	10uF,100V,Elect.
C5110~C5115	394691007	10uF,100V,Elect.
Resistors		
R5120~R5122	415474714	470ohm+/-5%,1/4W,NF carbon
R5160~R5165	415471214	120ohm+/-5%,1/4W,NF carbon
R5170~R5175	415471214	120ohm+/-5%,1/4W,NF carbon
R5180~R5185	415471004	10ohm+/-5%,1/4W,NF carbon
R5190~R5195	415471004	10ohm+/-5%,1/4W,NF carbon
Sockets		
P6000B~P6005B	25052288	NSCT-5P2185
P6011B	25052293	NSCT-10P2190
Plug		
P404A	25055156	NPLG-12P140
Holders		
P5000,P5002	27190540-1	Clamp
P5003	27190540-1	Clamp

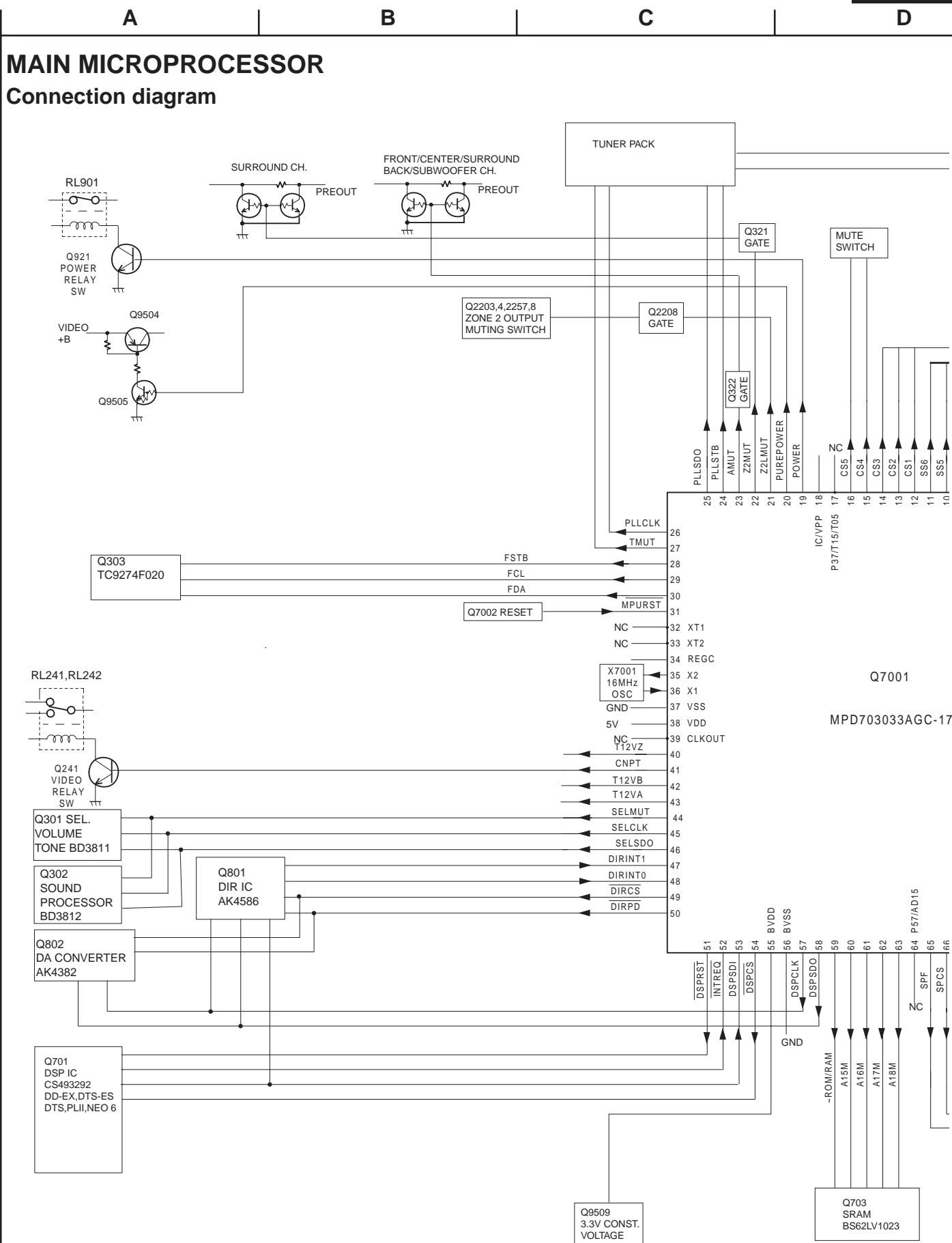
POWER SWITCH PC BOARD (NASW-7487-10/1P/1Q/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C902	3300030	⚠ DE1307E472M-KH,IS <O>
Switch		
S906	25035702	⚠ NPS-121-L665P <O>

NOTE: THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

PRIMARY CIRCUIT PC BOARD (NAPS-7484-1N/1O/1P/1Q/1R/1U)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistor		
Q921	2215864,	KTC3199-GR,
	2212115,	2SC2458-GR,
	2213284 or	2SC1740S-R or
	2213285	2SC1740S-S
Diodes		
D921~D924	22380260 or	RL1N4003 or
	22380035	GP104003E
D925	223163,	1SS133,
	223205 or	1SS270A or
	223222	WG713A
Power transformer		
T902	2301381	⚠ NPT-1358D <D>
	2301382	⚠ NPT-1358P <P>
	2301383	⚠ NPT-1358DG <T/R/K>
Capacitors		
C901	3500196S	⚠ RE275V-103M,IS
C922	394662217	220uF,35V,Elect.
C923	374722234	0.022uF+/-5%,50V,Plastic
Resistors		
R901	4000206S	⚠ RD1/2SPH-3.3M,Solid <D>
R924	443528204	82ohm+/-5%,1/2W,Metal oxide
AC outlet		
P902	25051126	⚠ NSCT-4P913 <D>
P902	25051125	⚠ NSCT-4P912 <P/T>
P902	25052115	⚠ NSCT-2P2013 <A>
P902	25052381	⚠ NSCT-2P2278 <R>
Relay		
RL901	25065584 or	⚠ NRL-1P10A-DC12-140 or
	25065516	⚠ NRL-1P10A-DC12-097
Fuse holders		
F901A,F901B	25052133	⚠ NSCT-1P2031<D/R/T>
F902A,F902B	25052133	⚠ NSCT-1P2031<O>
F903A,F903B	25052133	⚠ NSCT-1P2031 <O>
Fuse labels		
F901C	29362241	10A/125V <D/R/T>
F902C	29361938	T5AL250V <O>
Switch		
S902	25065437	⚠ NSS-22157P <T/R>
Socket		
P931A	25051230	NSCT-5P1020
Plug		
P901A	25055675 or	⚠ NPLG-2P631 or
	25056028	⚠ NPLG-2P0978
CONNECTOR PC BOARD (NAETC-7486-1N/1O/1P/1Q/1R/1U)		
CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q2031,Q2032	2215960 or	KRC102M or
Q2225	2213290	DTC114ES
Q2226	2212855 or	2SB1068-U or
	2212853	2SB1068-K
Q2231,Q2232	2215770 or	KRA102M or
Q2234,Q2236	2213510	DTA114ES
Q2233,Q2235	2215770 or	KRA102M or
	2213510	DTA114ES
Capacitors		
C2031	394641017	100uF,16V,Elect.
C2032	374722234	0.022uF+/-5%,50V,Plastic
C2243	394644707	47uF,16V,Elect.
Thermistors		
R2247	4000195	RXE030
Sockets		
P105A	25051241	NSCT-20P1031
P106A	25051526	NSCT-4P1313
P107A	25051240	NSCT-15P1030
P205A	25055712	NPLG-20P668
P207A	25055708	NPLG-12P664

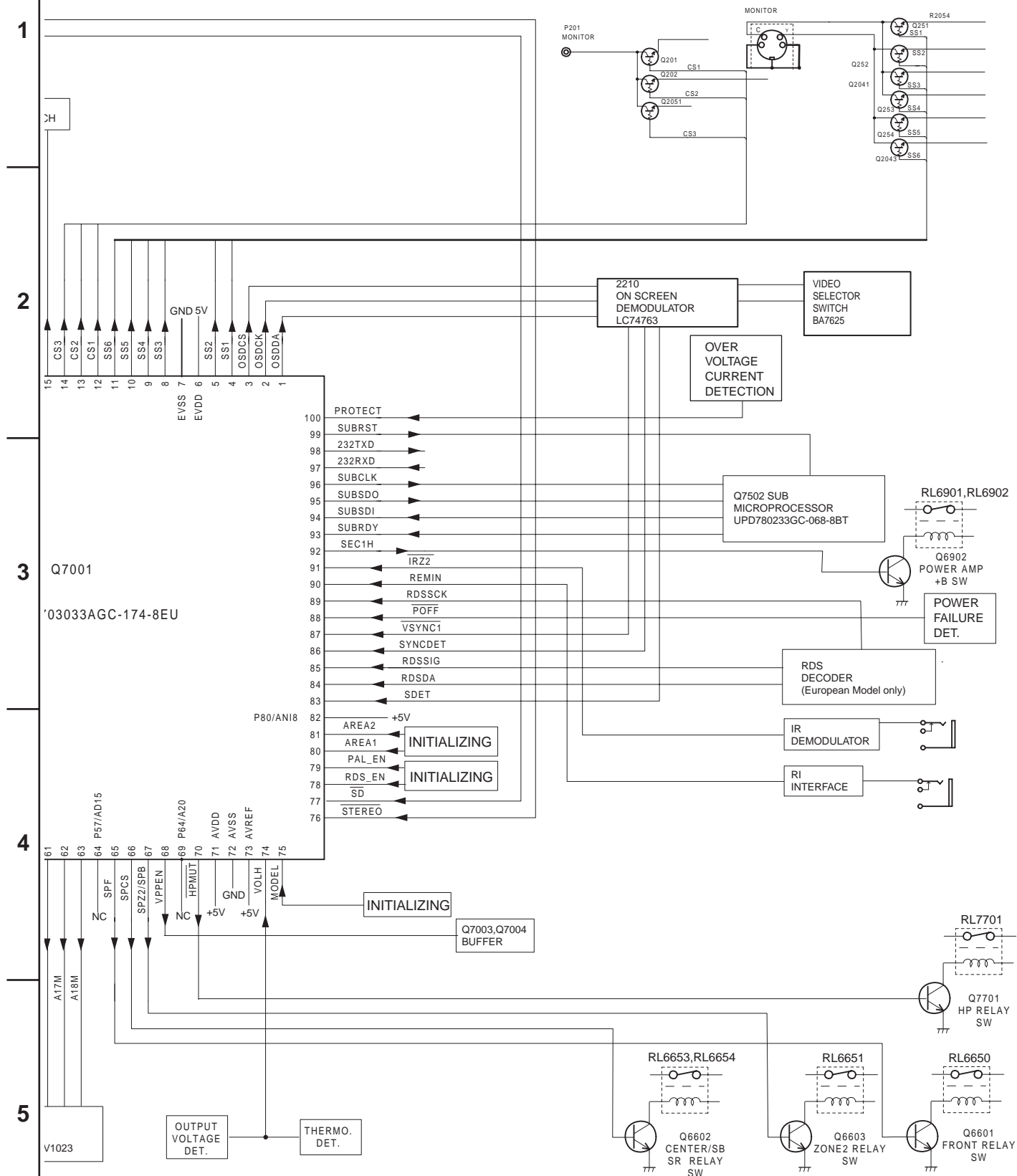


A

B

C

D

MAIN MICROPROCESSOR**Connection diagram**

SUB-MICROPROCESSOR CONNECTION DIAGRAM

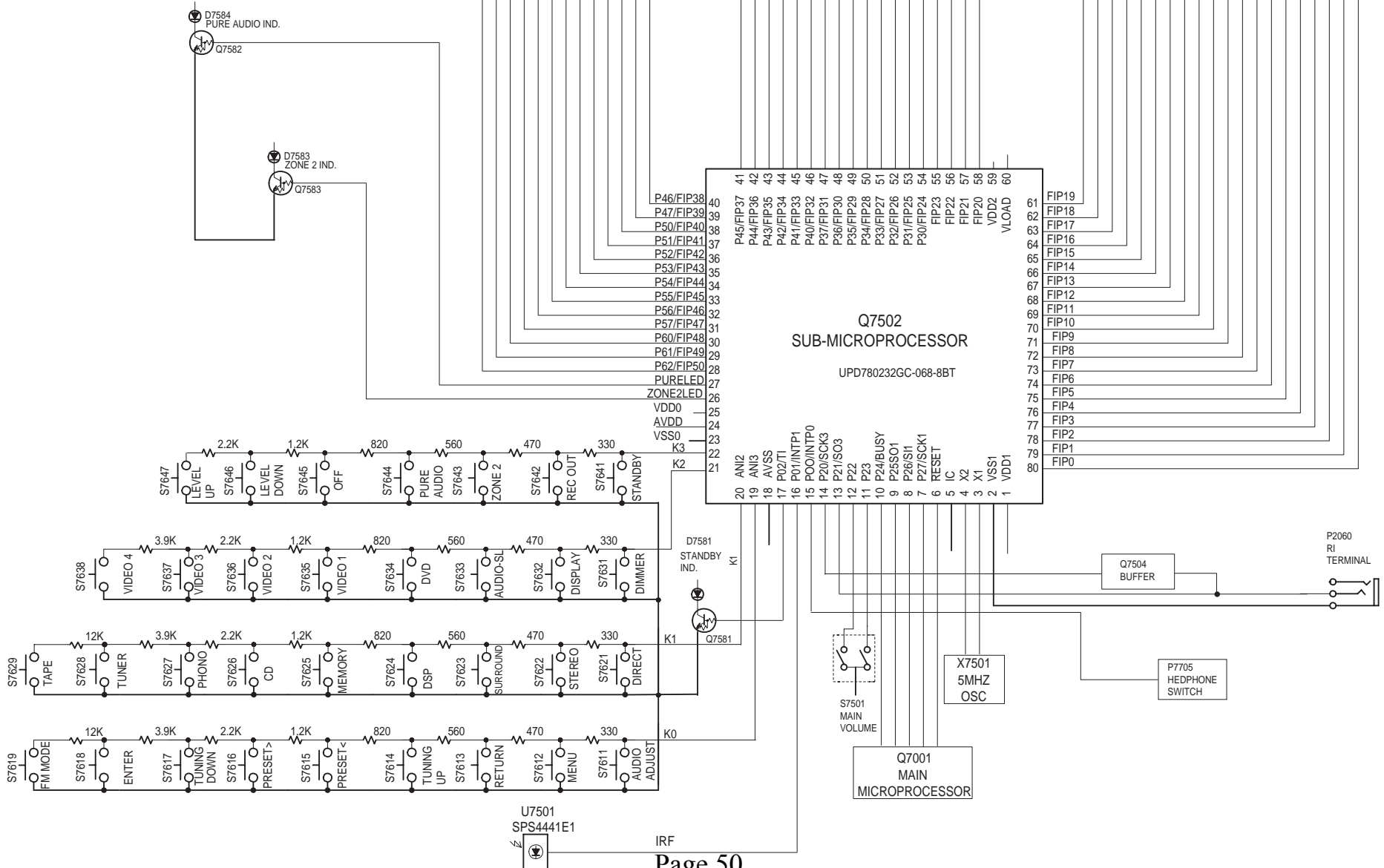
Q7501
FL TUBE
HNA-16MM39T

Q7502
SUB-MICROPROCESSOR
UPD780232GC-068-8BT

Q7001
MAIN
MICROPROCESSOR

U7501
SPS4441E1

Page 50



A				B				C				D				E			
MAIN MICROPROCESSOR-TERMINAL DESCRIPTIONS																			
No.	Function	I/O	Act	Description	No.	Function	I/O	Act	Description	No.	Function	I/O	Act	Description	No.	Function	I/O	Act	Description
1	OSDDA	O	H	Serial data signal output pin to OSD IC.	60	A15	O	H	Address 15 output pin to Boot ROM.	1	OSDDA	O	H	Serial data signal output pin to OSD IC.	61	A16	O	H	Address 16 output pin to Boot ROM.
2	OSDCL	O	CLK	Serial clock signal output pin to OSD IC.	62	A17	O	H	Address 17 output pin to Boot ROM.	3	OSDCS	O	H	Chip select signal output pin to OSD IC.	63	A18	O	H	Address 18 output pin to Boot ROM.
3	OSDCS	O	H	Chip select signal output pin to OSD IC.	65	SPF	O	H	Speaker relay control signal output pin for the front channel.	4	SVS1	O	H	Logic output pin of S video 1.	66	SPCS	O	H	Speaker relay control signal output pin for the center and surround channels.
4	SVS1	O	H	Logic output pin of S video 1.	67	SPZ2/SPB	O	H	Speaker relay control signal output pin for the zone 2 or speaker B.	5	SVS2	O	H	Logic output pin of S video 2.	68	VPPEN	O	H	Vpp voltage generation circuit to rewrite the program..
5	SVS2	O	H	Logic output pin of S video 2.	70	HPMUT	O	H	Muting control signal output pin for headphone.	6	VCC			Power supply pin. Connect to 5V.	71	VCC			Power supply pin. Connect to 5V.
6	VCC			Power supply pin. Connect to 5V.	72	VSS			Power supply pin. Connect to the ground.	7	VSS			Power supply pin. Connect to the ground.	73	VCC			Power supply pin. Connect to 5V.
7	VSS			Power supply pin. Connect to the ground.	74	VOLH	I	ANA	Output level detection input pin.	8	SVS3	O	H	Logic output pin of S video 3..	75	MODEL	I	ANA	Initializing input pin of model.
8	SVS3	O	H	Logic output pin of S video 3..	76	STEREO	I	H	Stereo broadcast detection input pin.	9	SVS4	O	H	Logic output pin of S video 4.	77	~SD	I	L	Broadcast detection input pin more than the muting level.
9	SVS4	O	H	Logic output pin of S video 4.	78	RDSEN	I	H	Initializing input pin of RDS broadcast.	10	SVS5	O	H	Logic output pin of S video 5.	79	PALEN	I	L/H	Initializing input pin of PAL or NTSC.
10	SVS5	O	H	Logic output pin of S video 5.	80	AREA1	I	H	Initializing input pin of band aria.	11	SVS6	O	H	Logic output pin of S video 6.	81	AREA2	I	H	Initializing input pin of band aria.
11	SVS6	O	H	Logic output pin of S video 6.	83	SDET	I	H	S video signal detection input pin	12	VCS1	O	H	Logic output pin of video 1.	84	RDSDA	I	H	Data input pin from RDS decoder.
12	VCS1	O	H	Logic output pin of video 1.	85	RDSSIG	I	H	Signal input pin from RDS decoder	13	VCS2	O	H	Logic output pin of video 2.	86	SYNC	I	H	External synchronizing judgement input pin from OSD IC.
13	VCS2	O	H	Logic output pin of video 2.	87	~VSYNC	I	L	Vertical synchronizing signal input pin.	14	VCS3	O	H	Logic output pin of video 3.	88	~POFF	I	L	Power failure detection input pin.
14	VCS3	O	H	Logic output pin of video 3.	89	RDSSCK	I	CLK	Clock signal input pin from RDS decoder.	15	VCS4	I/O	H	Logic output pin of video 4.	90	~IRIN	I	L	Signal input pin from remote control IRIN.
15	VCS4	I/O	H	Logic output pin of video 4.	91	~IRZ2	I	L	Signal input pin from remote control ZONE 2.	16	VCS5	O	H	Logic output pin of video 5.	92	SEC1H	O	H	Amplifier gain control output pin.
16	VCS5	O	H	Logic output pin of video 5.	93	SUBRDY	I	H	Ready signal input pin from the sub microprocessor.	17	VCS6	O	H	Logic output pin of video 6.	94	SUBSDI/SI	I	H	Data signal input pin from the sub microprocessor.
17	VCS6	O	H	Logic output pin of video 6.	95	SUBSDO/SO	O	H	data signal output pin to the sub microprocessor.	19	POWER	O	H	Output pin to control the power supply of amplifier section.	96	SUBCLK/SCL	O	CLK	Clock signal output pin to the sub microprocessor.
19	POWER	O	H	Output pin to control the power supply of amplifier section.	97	232RXD	I	H	RXD signal output pin to RS232.	20	UREPOWER	O	H	Output pin to control the power supply of video section when the pure audio.	98	232TXD	O	H	TXD signal input pin from RS232.
20	UREPOWER	O	H	Output pin to control the power supply of video section when the pure audio.	99	SUBRST/HS	O	H	Reset signal output pin to the sub microprocessor.	21	Z2LMUT	O	H	Line muting control output pin for Zone 2.	100	PROTECT	I	H	over current and over voltage detection input pin.
21	Z2LMUT	O	H	Line muting control output pin for Zone 2.						22	Z2MUT	O	H	Muting control output pin for Zone 2.					
22	Z2MUT	O	H	Muting control output pin for Zone 2.						23	AMUT	O	H	Audio muting control output pin.					
23	AMUT	O	H	Audio muting control output pin.						24	PLLSTB	O	H	Strobe signal output pin to PLL IC in the tuner pack.					
24	PLLSTB	O	H	Strobe signal output pin to PLL IC in the tuner pack.						25	PLLSDO	O	H	Data signal output pin to PLL IC.					
25	PLLSDO	O	H	Data signal output pin to PLL IC.						26	PLLCLK	O	H	Clock signal output pin to PLL IC.					
26	PLLCLK	O	H	Clock signal output pin to PLL IC.						27	TMUT	O	H	Muting control output pin for tuner section.					
27	TMUT	O	H	Muting control output pin for tuner section.						28	FSTB	O	H	Serial latch signal output pin to the analog switch TC9274.					
28	FSTB	O	H	Serial latch signal output pin to the analog switch TC9274.						29	FCL	O	H	Serial1 clock signal output pin to the analog switch TC9274.					
29	FCL	O	H	Serial1 clock signal output pin to the analog switch TC9274.						30	FDA	O	H	Serial data signal output pin to the analog switch TC9274.					
30	FDA	O	H	Serial data signal output pin to the analog switch TC9274.						31	~RESET			System reset pin					
31	~RESET			System reset pin						35	XOUT			Oscillator circuit output pin for main clock. Connector the 16MHz ceramic resonator.					
35	XOUT			Oscillator circuit output pin for main clock. Connector the 16MHz ceramic resonator.						36	XIN			Oscillator circuit input pin for main clock. Connector the 16MHz ceramic resonator.					
36	XIN			Oscillator circuit input pin for main clock. Connector the 16MHz ceramic resonator.						37	VSS			Power supply pin. Connect to the ground.					
37	VSS			Power supply pin. Connect to the ground.						38	VCC			Power supply pin. Connect to 5V.					
38	VCC			Power supply pin. Connect to 5V.						41	CNPT	O	H	Composite signal selector pin.					
41	CNPT	O	H	Composite signal selector pin.						42	T12VB	O	H	12V trigger output pin B.					
42	T12VB	O	H	12V trigger output pin B.						43	T12VA	O	H	12V trigger output pin A.					
43	T12VA	O	H	12V trigger output pin A.						44	SELMUT	O	H	Muting control signal output pin to BD3811.					
44	SELMUT	O	H	Muting control signal output pin to BD3811.						45	SELCLK	O	H	Clock signal output pin to BD3811.					
45	SELCLK	O	H	Clock signal output pin to BD3811.						46	SELSDO	O	H	Data signal output pin to BD3811.					
46	SELSDO	O	H	Data signal output pin to BD3811.						47	DIRINT1	I	H	Interrupter signal input pin from DIR IC.					
47	DIRINT1	I	H	Interrupter signal input pin from DIR IC.						48	DIRINT0	I	H	Interrupter signal input pin from DIR IC.					
48	DIRINT0	I	H	Interrupter signal input pin from DIR IC.						49	~DIRCS	O	L	Chip select signal output pin to DIR IC.					
49	~DIRCS	O	L	Chip select signal output pin to DIR IC.						50	~DIRPD	O	L	Power down signal output pin to DIR IC.					
50	~DIRPD	O	L	Power down signal output pin to DIR IC.						51	~DSPRST	O	H	Reset signal output pinto DIR IC.					
51	~DSPRST	O	H	Reset signal output pinto DIR IC.						52	~INTREQ	I	L	Interrupter signal of DSP IC and rollback signal input/output pin.					
52	~INTREQ	I	L	Interrupter signal of DSP IC and rollback signal input/output pin.						53	DSPSDI	I	H	Serial data signal input pin from DIR and DSP ICs.					
53	DSPSDI	I	H	Serial data signal input pin from DIR and DSP ICs.						54	~DSPCS	O	L	Chip select signal output pin to DSP IC.					
54	~DSPCS	O	L	Chip select signal output pin to DSP IC.						55	BVDD			Power supply pin. Connect to 3.3V.					
55	BVDD			Power supply pin. Connect to 3.3V.						56	BVSS			Power supply pin. Connect to ground.					
56	BVSS			Power supply pin. Connect to ground.						57	DSPCLK	O	H	Serial clock signal output pin to DIR and DSP ICs.					
57	DSPCLK	O	H	Serial clock signal output pin to DIR and DSP ICs.						58	DSPSDO	O	H	Serial data signal output pin to DIR and DSP ICs.					
58	DSPSDO	O	H	Serial data signal output pin to DIR and DSP ICs.						59	~ROM/RAM	O	L/H	ROM/RAM select pin to DSP IC.					
59	~ROM/RAM	O	L/H	ROM/RAM select pin to DSP IC.															

TERMINAL DESCRIPTION

SUB MICROPROCESSOR

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	VDD		Power supply terminal. Connect to 5V.	41	P22	O	Segment output terminal of P22.
2	VSS		Ground terminal.	42	P21	O	Segment output terminal of P21.
3	X1		Ceramic oscillator connection terminals for main system.	43	P20	O	Segment output terminal of P20.
4	X2		Connect the 5MHz ceramic oscillator between #3 and #4.	44	P19	O	Segment output terminal of P19.
5	IC/VPP		Internal connection terminal	45	P18	O	Segment output terminal of P18.
6	~RESET	I	System reset signal input terminal.	46	P17	O	Segment output terminal of P17.
7	SUBCL/SCK	I	Clock input terminal to transmit the signal from main microprocessor.	47	P16	O	Segment output terminal of P16.
8	SUBDO/SDI	I	Data input terminal to transmit the signal from main microprocessor.	48	P15	O	Segment output terminal of P15.
9	SUBDI/SDD	O	Data output terminal to transmit the signal to main microprocessor.	49	P14	O	Segment output terminal of P14.
10	SUBLDY	O	Data ready output terminal to transmit to the main microprocessor.	50	P13	O	Segment output terminal of P13.
11	VBJ	I	Pulse input terminal from the rotary encoder of volume.	51	P12	O	Segment output terminal of P12.
12	VAJ	I	Pulse input terminal from the rotary encoder of volume.	52	P11	O	Segment output terminal of P11.
13	SYSIN	I	System code input terminal.	53	P10	O	Segment output terminal of P10.
14	SYSOUT	I	System code output terminal.	54	P9	O	Segment output terminal of P9.
15	HPDET	I	Detection terminal of headphone insertion.	55	P8	O	Segment output terminal of P8.
16	~IRIN	I	Signal input terminal from the remote controller.	56	P7	O	Segment output terminal of P7.
17	STBYLED	O	Standby LED control output terminal.	57	P6	O	Segment output terminal of P6.
18	AVSS		Ground terminal for A/D converter.	58	P5	O	Segment output terminal of P5.
19	K0	I	Operation key connection terminal.	59	VDD2		Power supply terminal. Apply +5V.
20	K1	I	Operation key connection terminal.	60	VLOAD		Negative power supply terminal of FL controller.
21	K2	I	Operation key connection terminal.	61	P4	O	Segment output terminal of P4.
22	K3	I	Operation key connection terminal.	62	P3	O	Segment output terminal of P3.
23	VSS0		Ground terminal	63	P2	O	Segment output terminal of P2.
24	AVDD		Power supply terminal for A/D converter.	64	P1	O	Segment output terminal of P1.
25	VDDD		Power supply terminal. Apply +5V.	65	16G	O	Grid output terminal of 16G.
26	ZONE2LED	O	ZONE 2 indicator control output terminal.	66	15G	O	Grid output terminal of 15G.
27	PURELED	O	PURE AUDIO indicator control output terminal.	67	14G	O	Grid output terminal of 14G.
28	P35	O	Segment output terminal of P35.	68	13G	O	Grid output terminal of 13G.
29	P34	O	Segment output terminal of P34.	69	12G	O	Grid output terminal of 12G.
30	P33	O	Segment output terminal of P33.	70	11G	O	Grid output terminal of 11G.
31	P32	O	Segment output terminal of P32.	71	10G	O	Grid output terminal of 10G.
32	P31	O	Segment output terminal of P31.	72	9G	O	Grid output terminal of 9G.
33	P30	O	Segment output terminal of P30.	73	8G	O	Grid output terminal of 8G.
34	P29	O	Segment output terminal of P29.	74	7G	O	Grid output terminal of 7G.
35	P28	O	Segment output terminal of P28.	75	6G	O	Grid output terminal of 6G.
36	P27	O	Segment output terminal of P27.	76	5G	O	Grid output terminal of 5G.
37	P26	O	Segment output terminal of P26.	77	4G	O	Grid output terminal of 4G.
38	P25	O	Segment output terminal of P25.	78	3G	O	Grid output terminal of 3G.
39	P24	O	Segment output terminal of P24.	79	2G	O	Grid output terminal of 2G.
40	P23	O	Segment output terminal of P23.	80	1G	O	Grid output terminal of 1G.

ADJUSTMENT AND CONFIRMATION PROCEDURES 1

Idling current adjustment

Before Idling adjustment, turn the trimming resistors R6040 to R6045 to counter clockwise.

Connect the DC voltmeter to sockets P6080 to P6085.

After turn POWER to ON, adjust the trimming resistors R6040, R6041 and R6042 so that the reading of voltmeter becomes 2.5 mV. (Front and center channels)

Adjust the trimming resistors R6043, R6044 and R6045 so that the reading of voltmeter becomes 1.5 mV. (Surround and surround back channels)

After adjustment, attach the top cover.

Confirm the voltage of points above after about five minutes.

Front and center channels

When less than 10.0 mV, readjust the resistors above so that the voltage becomes 10.0 mV.

When 10.0 mV to 12.0 mV, you are not necessary to adjust.

When more than 12.0 mV, readjust the resistors above so that the voltage becomes 12.0 mV.

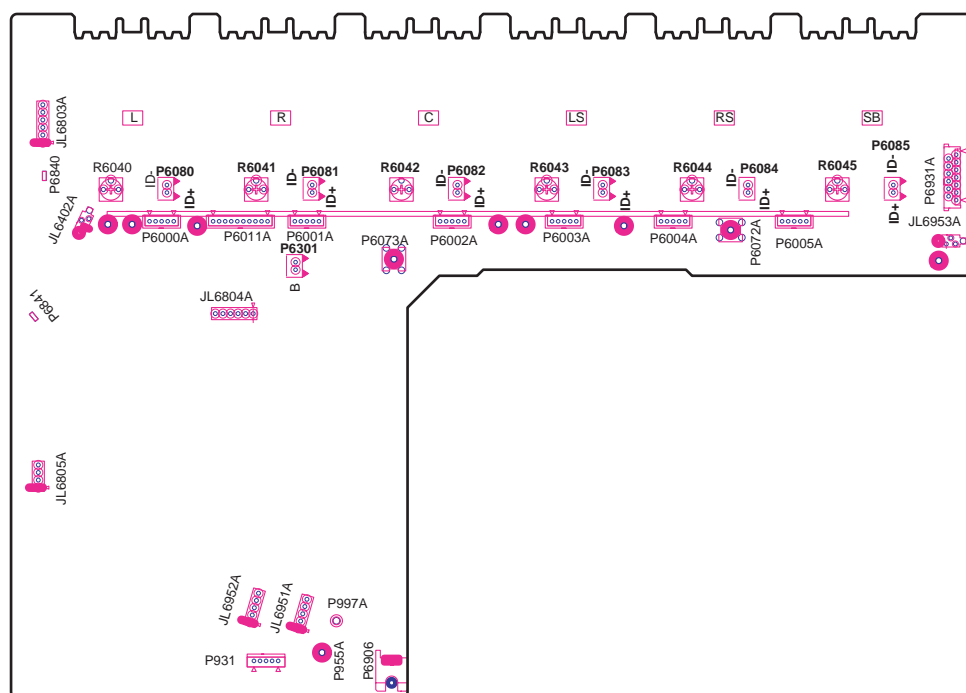
Surround and surround back channels

When less than 7.0 mV, readjust the resistors above so that the voltage becomes 7.0 mV.

When 7.0 mV to 9.0 mV, you are not necessary to adjust.

When more than 9.0 mV, readjust the resistors above so that the voltage becomes 9.0 mV.

Note: No load and No signal



Confirmation of protection circuit

1. Confirmation of operation of speaker relay

Confirm that the speaker relays turn ON approximate. 5 seconds after the power switch is turned ON.

Confirm that the speaker relays turn OFF immediately after the power switch is turned OFF.

2. Confirmation of DC detection circuit

Press and hold down CD button, then press STANDBY/ON and DISPLAY buttons to set the unit to "Test-1" mode.

After "Test-1" on the FL tube light on, press VIDEO 1 button to set the unit to "Test-1-00".

Apply DC 1.5 to 3V to DVD INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Apply DC -1.5 to -3V to DVD INPUT terminal with no load.

Confirm that the speaker relay turns OFF.

Caution: Don't apply DC voltage more than 1 sec..

ADJUSTMENT AND CONFIRMATION PROCEDURES 2

3. Confirmation of Current detection circuit

Set the unit to "Test-1-00".

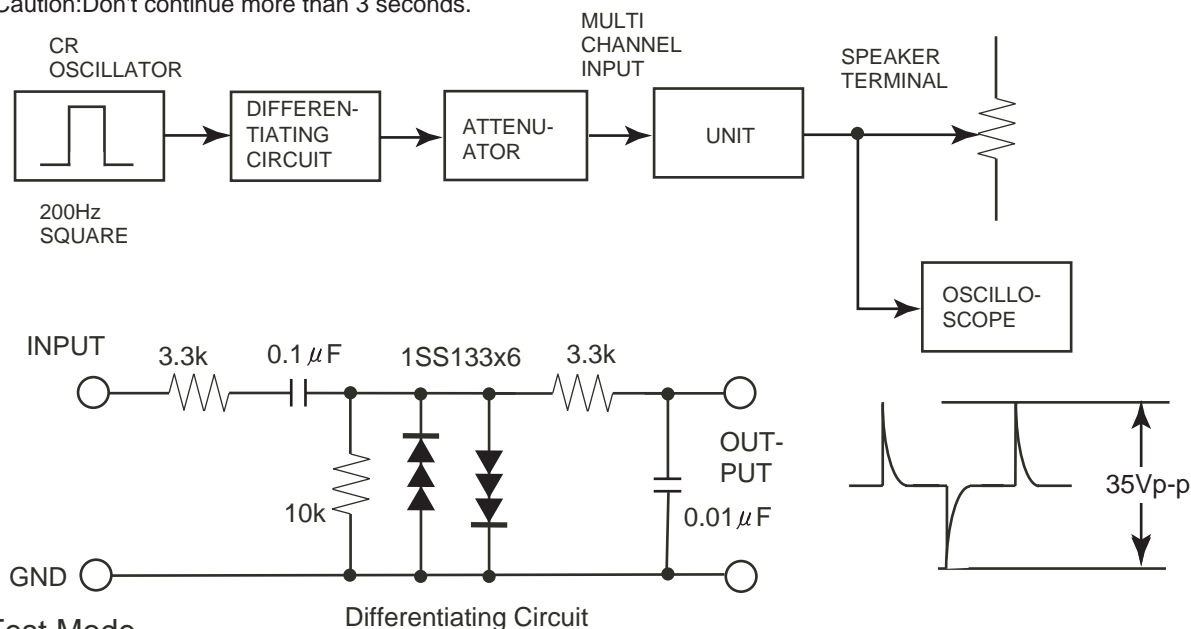
Connect the differentiating circuit and apply the 200Hz square signal to MULTI CHANNEL INPUT terminal of each channel.

Adjust the attenuator or Volume so that the output level becomes 35V p-p.

Confirm that the speaker relay does not turn OFF when a 3.0 ohm load is connected.

Confirm that the speaker relay turns off when a 1.5 ohm load is connected.

Caution: Don't continue more than 3 seconds.



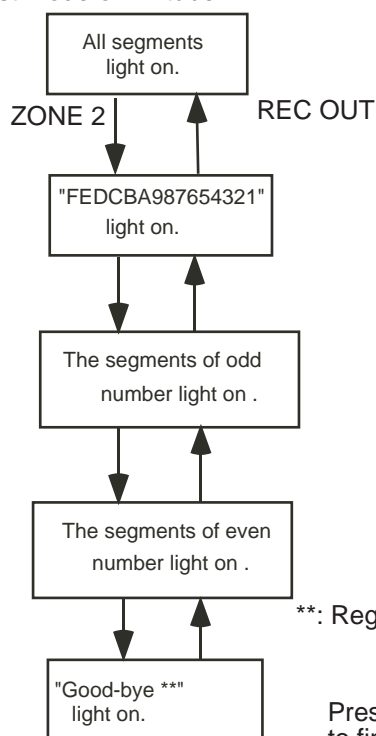
Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press STANDBY/ON button.
3. After "Test-1" on the FL tube is displayed, press CD button to set the unit to the Test mode of FL tube.

Note: DVD:Test-1 VIDEO 1 :Test-2 ZONE 2: UP

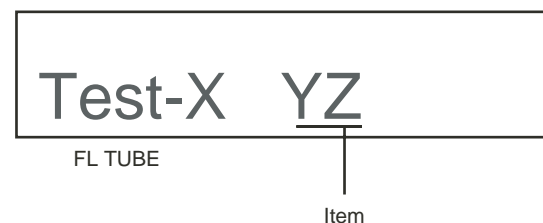
VIDEO 2 :Test-3 VIDEO 3:Test-4 REC OUT: DOWN

Test mode of FL tube



** : Region US:U.S.A.
EU:Europe
WR:Other models

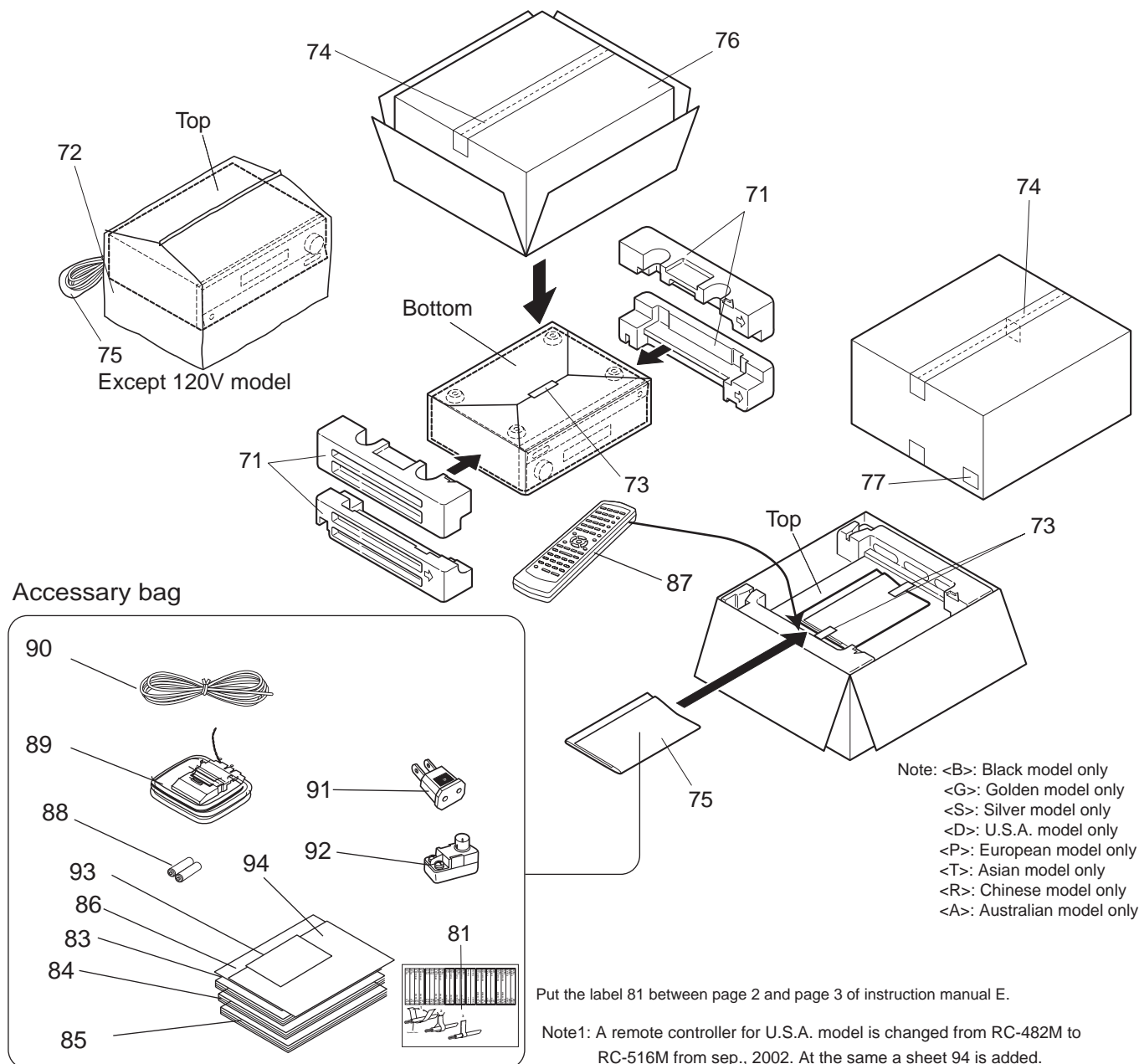
Press POWER button
to finish the Test mode of FL tube.



Confirmation of voltage sensor

1. Set the unit to Test-3-4.
2. Apply the signal 1kHz, -15dBV to the MULTI-CH input. Confirm that the FM STEREO is displayed. Confirm the all channels except SUBWOFFER.
3. When connect the resistor 2.7 kohm/1 W between the terminals COM and TH1 of P6301, confirm that "FM STEREO" light on.
Note: No input signal.
4. When set the unit to "Test-4-30, confirm that the speaker relays of RL6901 and RL6902 turn off.
Note: No input signal.

PACKING PROCEDURES



REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
71	29092052	Pad	81	29363059A	Label,cable
72	29100153	1020x720,Polybag	83	29343298B	Instruction manual E
73	29110149	Tape,cellophane	84	29343300A	Instruction manual FSI <P>
74	29110148	PP tape		29343302A	Instruction manual CTCS <T/R>
75	29100097-1A	350*250,Polybag	85	29343301A	Instruction manual GDSW <P>
76	29053885	Carton box <D>	86	29343299	Instruction manual,digist <D>
	29053886	Carton box <T/A>	87	24140482	RC-482M,Remote controller
	29053887	Carton box <P>		24140516	RC-516M,Remote controller <D> Note 1
	29053888	Carton box <S>	88	3010054	UM-3,Battery
	29053889	Carton box <G>	89	232140	NMA-3057,AM loop antenna
77	29363093	Label UPC <D>	90	292142	FM antenna <D>
	29363089	Label EAN <P>		292115	FM antenna <P/T/A/R>
	29363090	Label EAN <S>	91	25056005	CV-K-1,Conversion plug <T>
	29363091	Label EAN <T/A>	92	25065462	YAE21-0237,Antenna adaptor <T/A/R>
	29363092	Label EAN <G>	93	29365090A	Warranty card <D>
			94	29355408	Instruction sheet <D> Note 1

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